

The Technology Review

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OF THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Representatives at Large

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Term expires March, 1913

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Term expires March, 1915

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Term expires January, 1914
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TECHNOLOGY CLUB OF HARTFORD, CONN.
INLAND EMPIRE ASSOCIATION OF THE M. I. T.
TECHNOLOGY CLUB OF NEW BEDFORD.
TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA.
TECHNOLOGY ASSOCIATION OF OREGON.
ROCKY MOUNTAIN TECHNOLOGY CLUB.
TECHNOLOGY CLUB OF THE SOUTH.
BROOKLINE TECHNOLOGY ASSOCIATION.
TECHNOLOGY ASSOCIATION OF JAPAN.
TECHNOLOGY CLUB OF THE FAR EAST.
TECHNOLOGY CLUB OF ROCHESTER.
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126 Thornton Street, Roxbury, Mass.		24 Garden St., Cambridge, Mass.	
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Massachusetts Institute of Technology, Boston.		BRYANT NICHOLS	'07
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Massachusetts Institute of Technology, Boston.		HAROLD S. WILSON	'07
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Boss Mfg. Co., Kewanee, Ill.		Mass.	
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1235 Morton Street, Mattapan, Mass.		Ass't Secretary, 142 Highland Ave., Somerville, Mass.	
		O. B. DENISON	'11
		152 West St., Worcester, Mass.	

LOCAL ALUMNI ASSOCIATIONS

Albany — TECHNOLOGY CLUB OF ALBANY, N. Y., Selby Haar ('04), Secretary, 12 Grove Place, Schenectady, N. Y.

Birmingham — TECHNOLOGY ASSOCIATION OF GREATER BIRMINGHAM, ALA., Maurice Scharff ('09), Secretary, 1140 Brown-Marx Building, Birmingham, Ala.

Boston — TECHNOLOGY CLUB OF BOSTON, Dr. Robert Seaton Williams ('02), Secretary, 83 Newbury Street, Boston, Mass.

☞ Luncheon — The classes from '01 to '10 meet at the American House Rathskeller, Hanover Street, Fridays, 12.30 to 1.30 p. m.

Brookline — BROOKLINE TECHNOLOGY ASSOCIATION, George Lawrence Smith ('97), Secretary, 36 Upland Road, Brookline, Mass.

Buffalo — TECHNOLOGY CLUB OF BUFFALO, R. F. Morgan ('96), Secretary, 139 W. Oakwood Pl., Buffalo, N. Y.

Chicago — NORTH-WESTERN ASSOCIATION OF THE M. I. T., Meyer J. Sturm ('96), Secretary, 118 N. La Salle Street, Chicago, Ill.

☞ Luncheon — Thursdays at 12.30 p. m. at Grand Pacific Hotel, 178 Madison Street.

Cincinnati — THE CINCINNATI M. I. T. CLUB, Stuart R. Miller ('07), Secretary, 3366 Morrison Avenue, Clifton, Cincinnati, Ohio.

☞ Luncheon — Tuesdays from 12 to 1.30 p. m. at Bismarck Grill, Walnut Street.

Cleveland — TECHNOLOGY CLUB OF NORTHERN OHIO, Sidney Young Ball ('03), Secretary, 1847 East 97th Street, Cleveland, Ohio.

Denver — ROCKY MOUNTAIN TECHNOLOGY CLUB, Walter H. Traak, Jr. ('06), Secretary, Box 1802, Denver, Col.

Detroit — DETROIT TECHNOLOGY ASSOCIATION, Currier Lang ('04), Secretary, care of Solvay Process Co., Detroit, Mich.

Hartford — TECHNOLOGY CLUB OF HARTFORD, CONN., George William Baker ('92), Secretary, Box 983, Hartford, Conn.

Japan — TECHNOLOGY ASSOCIATION OF JAPAN, Dr. Takuma Dan ('78), Secretary-Treasurer, 17 Tango-cho Akasaka-Ku, Tokio, Japan.

Lawrence } — TECHNOLOGY CLUB OF THE MERRIMACK VALLEY, John Arthur Collins, Jr. ('97), Secretary, 67
Lowell } Thorndyke Street, Lawrence, Mass.

Los Angeles — TECHNOLOGY CLUB OF SOUTHERN CALIFORNIA, L. A. Parker ('06), Secretary, 680-691 Pacific Electric Building, Los Angeles, Cal.

☞ Luncheon — First Wednesday of each month, at The University.

Manchester — TECHNOLOGY ASSOCIATION OF NEW HAMPSHIRE, Andrew Fisher, Jr. ('05), Secretary-Treasurer, 186 Lowell Street, Manchester, N. H.

Manila — TECHNOLOGY CLUB OF THE FAR EAST, William A. Adams ('08), Secretary, Bureau of Lands, Manila, P. I.

Milwaukee — TECHNOLOGY CLUB OF MILWAUKEE, Mitchell Mackie ('05), Secretary, Commercial Auto Co., Milwaukee, Wis.

Minneapolis — TECHNOLOGY CLUB OF MINNESOTA, Clifford C. Hield ('10), Secretary, 1722 Fremont Ave. S., Minneapolis, Minn.

New Bedford — TECHNOLOGY CLUB OF NEW BEDFORD, MASS., Charles Frederic Wing, Jr. ('99), Secretary, 36 Purchase Street, New Bedford, Mass.

New Orleans — TECHNOLOGY CLUB OF THE SOUTH, Frank Wyman Crosby ('90), Secretary, 501-504 Denegre Building, New Orleans, La.

- New York — TECHNOLOGY CLUB OF NEW YORK, 17 Gramercy Park, Walter Large ('79), Secretary, 15 William Street, New York, N. Y.
- Philadelphia — TECHNOLOGY CLUB OF PHILADELPHIA, Dudley Clapp ('10), Secretary, 1421 Arch Street, Philadelphia, Pa.
- Pittsburg — PITTSBURG TECHNOLOGY ASSOCIATION, L. K. Yoder, ('95), Secretary, 5810 Murrayhill Place, Pittsburg, Pa.
- Portland — TECHNOLOGY ASSOCIATION OF OREGON, Antoine Gilbert Labbé ('07), Secretary, 227½ Washington Street, Portland, Ore.
- Providence — TECHNOLOGY CLUB OF RHODE ISLAND, Gerald M. Richmond ('99), Secretary, 532 Grosvenor Building, Providence, R. I.
- ~~St.~~ Luncheon — Thursdays at 12.30 p. m., at the Blackstone Hotel, 317 Westminster Street.
- Rochester — TECHNOLOGY CLUB OF ROCHESTER, J. F. Ancona ('03), Secretary, 190 Birr Street, Rochester, N. Y.
- St. Louis — SOCIETY OF THE M. I. T., St. LOUIS, Amasa M. Holcombe ('04), Secretary-Treasurer, care of Carr & Carr, 510 Pine Street, St. Louis, Mo.
- San Francisco — TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA, Office, 836 Merchants Exchange Bldg., San Francisco, Cal., Howard Coburn Blake ('06), Secretary, 3009 Deakin Street, Berkeley, Cal.
- Seattle — TECHNOLOGY CLUB OF PUGET SOUND, L. A. Wallon ('04), Secretary, The Seattle Electric Company, Seattle, Wash.
- ~~St.~~ Luncheon — Third Tuesday of each month.
- Spokane — INLAND EMPIRE ASSOCIATION OF THE M. I. T., Philip F. Kennedy ('07), Secretary, 01129 Hamilton Street, Spokane, Wash.
- Springfield — TECHNOLOGY CLUB OF THE CONNECTICUT VALLEY, Ernest W. Pelton ('03), Secretary, 77 Fores Street, New Britain, Conn.
- Steelton — TECHNOLOGY CLUB OF CENTRAL PENNSYLVANIA, Stephen Badlam ('00), Secretary, Box 183, Steelton, Pa.
- Syracuse — M. I. T. CLUB OF CENTRAL NEW YORK, H. N. Burhans ('07), Secretary, 227 McLennan Avenue, Syracuse, N. Y.
- Washington — WASHINGTON SOCIETY OF THE M. I. T., Clifton N. Draper ('08), Secretary, 1860 Columbia Road, Washington, D. C.
- Worcester — WORCESTER COUNTY TECHNOLOGY CLUB, Louis E. Vaughan ('02), Secretary-Treasurer, 72 West St., Worcester, Mass.

FIXED LUNCHEONS

- Boston — the '01-'10 Luncheon Club at American House Rathskeller, Fridays, 12.30-1.30 p. m.
- Chicago — Northwestern Association of M. I. T., at Grand Pacific Hotel, Thursdays at 12.30 p. m.
- Cincinnati — Cincinnati M. I. T. Club at the Bismarck Grill, Walnut Street, Tuesdays, from 12-1.30 p. m.
- Los Angeles — Technology Club of Southern California, at the University on the first Wednesday of each month.
- Providence — Technology Club of Rhode Island, at the Blackstone Hotel, 317 Westminster Street, Thursdays at 12.30 p. m.
- Seattle — Technology Club of Puget Sound, third Tuesday of each month.



RICHARD C. MACLAURIN
PRESIDENT OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The Technology Review

VOL. XIV.

APRIL, 1912

No. 4

A GIFT OF TWO AND A HALF MILLIONS

An unnamed donor provides money to build the new educational buildings—This with the generous help of the Alumni will enable the Institute to realize its ideal

The rising tide of good fortune that has been turning in the direction of the Institute, reached its climax when on March 13, President Maclaurin announced to the Corporation that a gift of two and a half million dollars had been offered by an unknown donor to enable the Institute to build the new educational buildings as a complete whole. This announcement which preceded by but a few days the news that the Corporation had bought and paid for the new site in Cambridge, removes the last vestige of uncertainty in regard to the material future of Technology; for, although a large amount must yet be secured for student housing, student welfare, facilities for athletics, as well as for equipment and grounds, the alumni will contribute a sum sufficient to complete a considerable part of this work, and the rest will undoubtedly be forthcoming. In his address to the Corporation, President Maclaurin said:

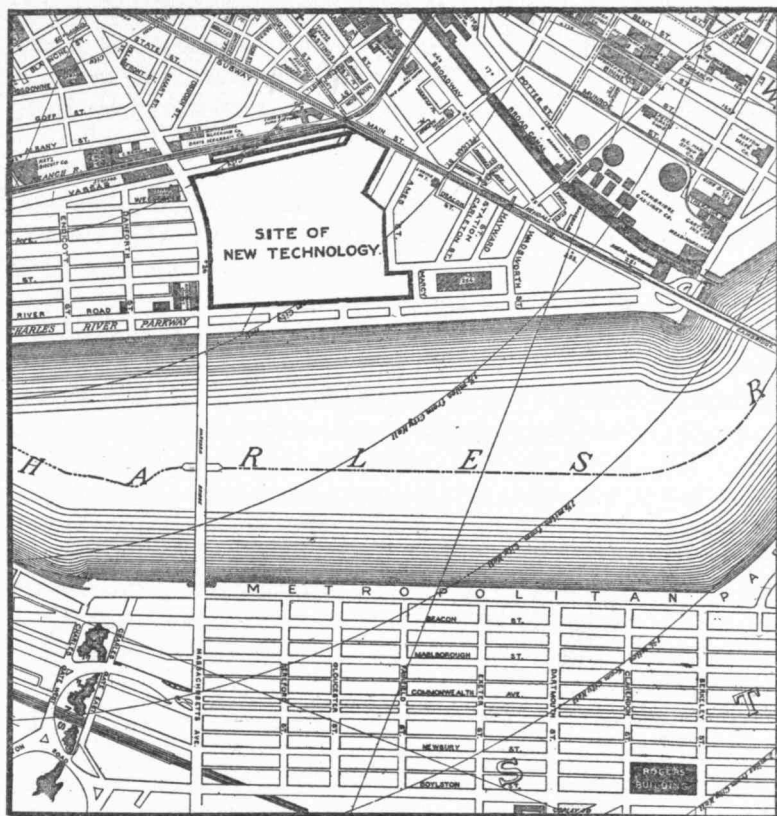
“The question of the Institute’s site is now all but settled, and I had hoped to be able to present the final report of the Site Committee to your Corporation today. There have been some delays, however, that made this impracticable, but it is expected that the price will be paid and the whole transaction closed in the course of a few days. The area to be purchased is almost exactly two million feet and the price of the land is \$775,000. A condition of the agreement to purchase imposed by the Site Committee was that Amherst Street and all other streets except Vassar Street, that

crossed the property should be closed. The closing of Amherst Street will necessitate some alterations to existing streets but instead of undertaking to make these alterations, it has been agreed to pay to the city of Cambridge the sum of \$10,000 as soon as the changes are actually made. Some slight additional expenditure may be incurred for the purchase of a small parcel of land that it may be deemed expedient to acquire.

"The recital of these facts and the review of my experiences on the Site Committee since it was constituted in June last suggest the observation that nothing is more encouraging to one in my position than to find how readily and generously busy men, such as are the members of this committee, give time and thought and energy to the study of the problems presented. Difficulties small and great have arisen in very considerable number since that committee was constituted, and the solution of these difficulties has called for patience and judgment and skill to an extent that cannot be easily estimated.

"Self-sacrifices of this kind are what is expected from members of your Corporation, where the well-being of the Institute is at stake. However, the difficulties of your Site Committee have been the opportunity for great service to the Institute on the part of one who has no official connection with it. I refer to the assistance in the conduct of our negotiations rendered by Mr. Charles W. Whittier, who placed his great skill and experience in dealings in real estate gratuitously at the disposal of your committee, and whose help has been simply invaluable. I hope that some suitable mode of recognition of these services will be devised by your Corporation.

"The question of site being practically settled, we are brought into closer grip with the problem of creating suitable buildings thereupon. This is a great question in each of its three main phases—educational, engineering and architectural. On educational and architectural matters we can count on the active coöperation of the instructing staff, almost every member of which is devoting himself with enthusiasm to the consideration of the problems that are presented. What I have called the engineering phase is of no less importance than the others with which it is of course closely allied. By engineering, I mean here not merely questions of structural design, of lighting, heating and ventilation, and so on, important and indeed vital as these are, but the question of proper



Map showing the new site and its environment

arrangement of individual buildings and the interrelation of different buildings in the group so as to save, as much as possible, waste of energy, and to give us the most convenient and the most scientifically designed school of architecture and engineering that is to be found in the world.

"I am glad to announce that to assist the executive committee in the consideration of these problems, we have secured the services of a distinguished member of your Corporation, Mr. John R. Freeman. At my request he has undertaken to devote himself exclusively for several months during the summer to the investigation of these questions and he will do this gratuitously, as an evidence of his good will to his alma mater. This is but one more

example of the spirit of self-sacrifice that animates the alumni where the problems of the Institute are concerned. It cannot fail to be of great value to this Corporation in enabling us to plan buildings that are adequate to the great future that inevitably lies before the Institute.

"It is however useless to plan buildings unless we can pay for their erection. Here I am fortunately in a position to make an announcement that is unique in its character as far as the Institute is concerned and one that must mark an epoch in our history. A donor, who wishes for the present to remain anonymous, has offered to subscribe whenever it may be needed, the sum of two and one-half million dollars towards our building fund. This should practically suffice to build the New Technology as far as strictly educational buildings are concerned. Provision has yet to be made for a centre of social activity among the students, for student houses or dormitories, for the equipment of the new buildings and for the laying out of the grounds, these being matters that the donor expects to be provided by other benefactors. To raise funds for these purposes, as well as an endowment that will enable the Institute to maintain its position of acknowledged leadership in its chosen field is the main financial problem with which our Corporation is now confronted.

"The gift that I have announced is one of the largest in this era of large things. It has been given in a spirit that shows a modern business man at his very best and in a manner that cannot fail to command our admiration by the evidence that it displays of the desire to do a great thing quietly and without fuss. It may interest you to be told some of the reasons for this gift indicated by the donor in the course of our conversations. (First.) His belief in the need of the highest technical education today and of its growing importance in the future. (Second.) His recognition of the great work that Technology has already done and his knowledge of the high esteem in which its alumni are held by those they have served. (Third.) His association with men of prominence in England and Germany and their assurance to him that the Institute of Technology is one of the great educational forces of the world. (Fourth.) His appreciation of the fact that prestige is a great asset to any institution and his belief that it should enable the Institute to attract the best students and instructors and so continue to turn out the best product. (Fifth.) His agreement

with our policy of expansion and with the general plan already announced as to the expansion and his very hearty approval of our choice of a site, in his judgment, 'Surely one of the very best in the world for such an institution.'

"I share the hope of the donor that this gift will stimulate the friends of the Institute not only to provide the funds for the payment of the price of the land, for the laying out of the grounds and erection of proper facilities for student life, but to go to the very heart of our problem and make a substantial addition to our endowment fund. The improved facilities of the new buildings on the new site will enable the Institute to do better work, but they will add considerably to the cost of maintenance. Moreover, as science advances, new fields of endeavor are constantly coming into view, and no one can be in close touch with the Institute's activities today without realizing that there are many obvious and important things for it to do if only financial difficulties did not stand in the way. Apart from this, however, we must recognize the fact that without any change whatever in the field of our operations we cannot continue in a position of unquestioned leadership unless we can continue to attract and retain the services of the very best men on our instructing staff. Higher salaries are inevitable and the sooner they come the better for the Institute, and for the cause of higher technical education generally.

"I am hopeful that all these things I have outlined will be done soon, because I recognize that the Institute has many friends today. The alumni have everywhere urged a forward policy and have often expressed their willingness to help in so far as in them lies. One of them, Mr. T. Coleman du Pont, by a great gift opportunely timed has done much to make this forward policy possible, and I have no doubt that others will combine to complete the Walker Memorial, erect student houses and lay out the grounds in a way that will show their appreciation of the splendid gift announced today from one who is not of their number. Neither Mr. du Pont nor this other benefactor is a Massachusetts man. Their gifts aggregate three million dollars, which is about the sum that is needed to do what is still required in the directions that I have indicated. The members of your Corporation may be relied upon to help in so far as in them lies, both directly and through their influence on public spirited citizens of Massachusetts. Certainly Massachusetts will not fail to support its own child merely

because its usefulness and its prestige are recognized so well beyond the borders of this state."

In an early appeal for funds for the Institute, President Rogers said, "I am sure that I speak from no impulse of mere enthusiasm when I say that this new undertaking presents an opportunity of practical beneficence in connection with education which is not only peculiar, but without precedent in this country. My experience as a teacher and my reflections on the needs and means of industrial instruction assure me that this enterprise when fully understood must command the liberal sympathy of those who aim to make their generosity fruitful in substantial and enduring public good." Now, after half a century of struggle, sustained by the devoted work of its Faculty and many members of its Corporation, the leadership of the Institute has come to be recognized the world over, and as a direct tribute to its worth, a man without the confines of Massachusetts, uninfluenced by personal connection or interest in the Institute has been led to contribute a sum sufficient to enable us to erect the new buildings according to a consistent and well-considered general plan without stint in any necessary particular.

The identity of the unknown donor has been a matter of newspaper speculation throughout the country since the announcement of the gift was made. The guesses include Frick, Carnegie, Morgan, Edison, Rockefeller and others, but although presumably no one but the man himself and President MacLaurin is possessed of the secret, it seems probable that all these guesses are far astray. Certain it is that the benefactor is thoroughly in accord with the President's ideas as to the character, scope and architectural effect of the buildings and in sympathy with the policy of the Institute. It would appear that the gift was made purely for the good of his fellow-men.

As the President has pointed out, in addition to the sum of money needed to complete the building operations, the Institute needs a very much larger endowment and it is hoped that others will be found who will add substantially to these funds. One crying need is a more substantial salary account and to this end the President is working assiduously. The salaries of professors should be materially increased and as the public appreciation of the Institute begins to take substantial form, it is very likely that this principal factor in the success and efficiency of Technology will be suitably recognized.

A GREAT ALUMNI FUND

A chance to show our faith and interest in Technology, and our appreciation of the gift of two and a half million dollars—
An effort to have every man represented

The announcement of the gift of two and a half million dollars toward the new buildings of the Institute brought about a radical change in the plans of the Alumni Fund Committee. It was intended that the sum given by the alumni would be so large and would be raised so quickly that it would be an inspiration to outside donors, but in the meantime, the tables have been turned and our unknown donor has offered such a magnificent contribution that it should inspire the alumni to show their appreciation by contributing an even greater amount than had been contemplated.

In a recent letter sent out by the President to every former student, announcing the gift and recounting the other benefits that have recently accrued to the Institute, he clearly points out that although the erection of the educational buildings will be met by the new gift, a very large sum is urgently needed for dormitories, adequate facilities for athletics, equipment of buildings, underground constructions, laying out and beautifying of the grounds, and a considerable addition to the \$133,000 already in hand for building and equipping a student social center and a gymnasium as a fitting memorial to General Walker.

In discussing the matter with the anonymous donor, the President assured him that the former students of the Institute stood ready to supplement the work so well begun by him, in the building of the New Technology. The gift was made to enable the Institute to erect its buildings as one complete and consistent whole. In order to do this, the items mentioned above must be provided for and the money should be in hand or at least pledged before the construction is actually begun.

The money to be thus raised will be applied to purposes in which the former students of the Institute are in hearty sympathy.

A sufficiently large sum should be added to the amount already raised for the Walker Memorial to build a student social center that will properly indicate to the world the delightful features of undergraduate social life at the Institute which are unappreciated by many of the older alumni as well as by the public at large. A broad conception of such a building might include a restaurant to provide not only the best of food at reasonable prices but to cater to every taste, a social room with a great fireplace and attractive furnishings, reading room, library, study rooms, private dining-rooms for clubs and societies, a small theatre for Friday evening entertainments, Tech show rehearsals, etc., possibly an alumni suite and rooms where professors can meet during the noon hour, as well as business offices for the various social activities which are now organized under the general government of the Institute Committee. Before the Walker Memorial is completed, the organization of student interests under the general management of the Institute Committee will probably be complete, each activity being a department of the committee, making its reports and turning over its surpluses to this central body. The present offices in the Union are not only small, but over two thirds of the activities are not housed at all. In the near future the Institute Committee will undoubtedly employ a general clerk and a stenographic bureau. Careful thought given to this feature of the Memorial will help to give a large number of the students the practical elements of a business education under the best conditions.

Whether the gymnasium should be included in the social building is a question much discussed. The consensus seems to be that the gymnasium should be a separate building adjacent to the social building and that eventually there should be a swimming tank which will also be in a separate building with a glass roof capable of being thrown open so that the tank will have every advantage of light and air. A scheme of this kind properly carried out, would require several hundreds of thousands of dollars. This matter of the Walker Memorial as well as that of dormitories is now being taken up by a committee of the Alumni Association.

The building of conduits, sewers and water mains, the filling in and the beautifying of the grounds, and the equipment of the buildings, will require a very large sum which is not yet provided

for. It will therefore be seen that while the alumni have a very large task before them. It should be an agreeable one for it gives them an opportunity to contribute to the things in which they are directly interested and to which their effort should be properly applied.

The Alumni Fund Committee which consists of Everett Morss, '85, chairman, James W. Rollins, '78, Edwin S. Webster, '88, Arthur T. Bradlee, '88, Frederic H. Fay, '93, and I. W. Litchfield, '85, secretary, have recently sent out a letter calling for contributions to fittingly complete the work yet unprovided for. President Maclaurin has asked us for our support. This is our opportunity, the greatest that will ever be offered to us and the response should come so quickly and in such an amount as to demonstrate our willingness and ability to generously support our President and our institution. No limit is set on the amount of individual subscriptions, either of maximum or of minimum. Doctor Maclaurin has asked that the subscription be a general one even if the individual is able to contribute only a small amount. Let every man give to the best of his ability and let him do it at once.

An Excellent Idea

The members of the Technology Club of Philadelphia are putting a great deal of thought into devising ways to be useful to the Institute, and to brother alumni. One of the suggestions that is to be carried out, is to keep a list of boarding houses that are known to be particularly desirable, and to assist Tech men coming to Philadelphia, especially the younger ones, to find a suitable home. They are not only willing to do this, but they are very desirous of doing it, and Tech men are requested to make known their intention previous to their arrival in the city. Inquiries may be addressed to Mr. C. F. Willard, care Victor Talking Machine Company, Camden, N. J., telephone No. 990 Camden. Here is an idea that might well be taken up by other local alumni associations.

THE RIGHT MAN IN THE RIGHT PLACE

Writer in the Boston Herald shows why President Maclaurin's administration has been successful—Recognition of power of Alumni a large factor

When the Massachusetts Institute of Technology elected to its presidency a man who was born in Scotland, educated in England and New Zealand, and who had been for ten years a university professor in that island at the other end of the world, everybody wondered what it meant.

He had been for a year and a half a member of the faculty of Columbia University, New York City, true, but to call him to the head of the great American technological school seemed to many like taking a very long chance. But by this time the public believes that the Corporation used the very best judgment.

Within a year Dr. Richard Cockburn Maclaurin had convinced about everybody connected with the Tech that he was the right man in the right place. They doubted a little, however, the feasibility of his scheme to remove the institution and put it on a new site and equip it with new buildings. That was "visionary," or, at least, "a long ways off." Then they discovered him all over again. And Boston discovered him. For he had found a man with the money and the will to provide the school with as fine a site as is possessed by any school of any sort in the world.

Then came the events of the last week which have disclosed Doctor Maclaurin to the world at large. A gift of \$2,500,000 in one sum from a living donor, mysteriously called "Mr. Smith," was enough to get the attention of all America and of a good part of Europe as well.

The new president is "established." He has made good. The boys swear by him. The Corporation and the Faculty smile whenever his name is mentioned, and the alumni—well, for some time he has been doing, as one of the things that the Tech most needed to have done, he has been doing the work of solidifying the alumni into a compact and enthusiastic body of men. They

had always been proud of the school. But by his visits and tours the new executive has infused them with a new spirit of enterprise in behalf of the institution.

Go out to the buildings and talk matters over with the men there. One in the midst of the financial details of the school tells you that Doctor Maclaurin has business ability of the highest order. An old member of the Faculty tells you that from the beginning the President has grasped the ideas of the founder of the school and promoted them. They tell you also how he recognized the tremendous potential power of the alumni, how he had demonstrated his ability to get men to work, how he has secured the intimate coöperation of the Corporation, the Faculty and the alumni, and these days they are all emphasizing the tact and skill he has shown in making acquaintances and getting men with money to bestow it upon the Boston school.

As a matter of fact Doctor Maclaurin has been acquainted with Tech for many years. Long ago he wrote for a Continental paper an article on the Massachusetts institution. Long before he came to Boston he had an intimate knowledge of American universities. He spent about a year in the United States and Canada in 1895 in the study of American educational methods.

He came to Boston also with a thorough experience in administrative details, for he had been for years chairman of the faculty of the University of Wellington, an administrative position somewhat like that of president of an American college. Also he had a considerable acquaintance with American educators before he came to Boston.

In the last three years he has been getting into touch with the men of affairs throughout the country. He has come into personal contact with the heads of the most important manufacturing concerns. He traveled for hours lately in a Pullman with a crowd of Cincinnati industrial leaders. He had quietly slipped into their car. And when he was recognized, they made him one of themselves. The man from New Zealand has come to know in this intimate fashion the men who are doing big things industrially in all parts of the United States.

He has impressed all with whom he has come in contact, so they say at the Tech, with his combination of qualities. "He has a clear head, a legal instinct and a scientific mind, which make an excellent trinity for an executive," is the way one man phrased

it yesterday. In his past career he has proved himself a brilliant scholar in two quite distinct branches of learning, mathematical physics and the law.

A member of the Faculty whom *The Herald* quizzed had this to say as to his business ability: "I doubt if there is any one connected with the school who has such a knowledge of the details about our funds and expenses as has Doctor Maclaurin. When there comes up, for instance, a question of the choice between one appropriation and another, he seems to know just how and where to make the money go farthest. This has been a very important factor in bringing the Tech to its present condition and will be fully as important when we come to the disposal of the large funds of the future."

And another member of the Faculty had this comment: "It is still a constant surprise to us how, without any perceptible effort, he seems to keep in touch with what is going on in the various departments. Every one is sure of his faith in the Institute and his capacity for leadership. He easily grasps the main issue and is not diverted by less important interests. He gives to all of us the sense of large reserved power."

In the way of specific educational administration, in these three years Doctor Maclaurin has developed the summer school; in line with his belief in the intermingling of the humanistic with scientific and technical subjects, he has advanced somewhat the requirements of the school in the languages; he has reorganized the mechanical engineering department; and in the last year he has introduced work in refrigerating engineering and in gas engine work.

The summer engineering camp really came to a focus this last year, and there is now under construction at Gardiner Lake, East Machias, Me., a permanent camp which is an outgrowth of a number of camps which have been operated in different places. Here the students are to be obliged to work one summer. They will have a chance at all sorts of things, from the determination of their height above the sea level, with its high and low tides, to mapping a railway line and doing the engineering for it.

The alumni developments which have been fostered these three or four years are held to be of the first importance. The school is comparatively young. The average graduate is said to be but thirty-five years of age. Therefore few of them can be expected

to be millionaires. But the new President has made the associations most effective in promoting the interests of the new Tech.

In a few years the number of associations has grown to thirty-six in different cities in various parts of the world, including one in Hawaii, one in Japan and one in Manila. By meeting the alumni and the classes of undergraduates, and individual students as well, freely and eagerly, the President has welded the whole Tech group into a homogeneous body infused with the same college spirit. And all these things have had their influence in securing the big gifts which have come to the school.

The personal history of Doctor Maclaurin is interesting. He comes of a distinguished ancestry. Away back in the sixth century one of the sons of Eric, named Laurin, a corruption of Lawrence, settled in Argyle, Scotland. The story of the Clan Maclaurin is part of the early history of Scotland and is full of romance. Then in the seventeenth century the intellectual tradition of the family began to appear, and of the name there are a large number of theologians, jurists, scientists and literary men.

Tech's President was born in Scotland in 1870 and educated in New Zealand and at Cambridge University. He has been twice honored by his university, receiving the degree of doctor of laws in 1904 because of his achievements in the law, and in 1908 receiving the degree of doctor of science for his attainments in mathematics and physics.

The secretary of the Royal Society has pronounced him a mathematician "quite of the first rank." The leading newspaper of Glasgow, a city which has one of the finest technical schools of Europe and which is usually rated first among British institutions of the kind, said of him: "One of the descendants of Colin Maclaurin after a brilliant career at Cambridge has won for himself international reputation in both science and law, and now presides over one of the greatest schools of applied science in the world, the Massachusetts Institute of Technology. Something of the power of Colin still lives, and the persistence of an intellectual strain presents one of the mysteries that science has not yet really penetrated."

COUNCIL HEARS OF PRESIDENT'S TRIP

Walker Memorial Committee asked to report on the form the Memorial is to take—Committee appointed to consider a course to prepare men for administrative positions and another on dormitories—Association to increase its income

At a meeting of the Alumni Council, held at the University Club March 1, President Maclaurin told the story of his visit to the various alumni clubs east of the Mississippi River. It was an illuminating talk, showing the great increase of alumni interest, as well as a strengthening of numbers in every alumni center. The President's report shows that Tech men everywhere were fully in sympathy with the idea of raising a large fund for the Institute among former students. It also showed that the men are better informed in regard to the matters that are happening in Technology from week to week, not only because of the TECHNOLOGY REVIEW, but by reason of increased Institute publicity in the daily press.

Following the President, A. F. Bemis, '93, took the floor. He said that, in his opinion, the alumni would be more likely to give liberally to the Alumni Fund if they know something about what the problems were; that we could not expect the best results when our constituents were entirely ignorant of what it was proposed to do. While he believed that it was not desirable for the alumni to interfere in any degree, he did feel that they should be called on for advice, as well as for financial help.

His suggestions were, first, that the Walker Memorial Committee be requested to report to the Council at the next meeting, and to outline their understanding of the part that they are to take in the general plan. The funds for the Walker Memorial were raised under certain conditions, and although these conditions have changed, there is an obligation on the association and its committee which must be considered. He believed the question of the form which the memorial shall take, and what relation it should bear to the other buildings, should be taken up and defined. His

second suggestion was that two committees be appointed; one to consider a business engineering course, believing that the establishment of such a course would have a good effect on the Fund, and another on students' houses. This matter may not be having the full attention of the Corporation in view of the other large problems before it. The discussion of this matter by the alumni would make them feel that they have a direct interest in the problem, and, furthermore, many of the suggestions would undoubtedly be of value. Mr. Bemis had another suggestion, to the effect that class secretaries report on their class organizations to the council, with a view of creating greater efficiency in the classes; that the council then take up the matter, and improve the organization where possible.

Mr. Frederic H. Fay, '93, stated that the matter of class efficiency had already been taken up, and was receiving the attention of the Association of Class Secretaries. The executive committee of the association is going into this matter in detail, and facts are being gathered in regard to the administration of the various classes. Many of them have excellent administration, and others are practically dead. This referred to the organization of the class rather than to the class itself, as many of the inactive classes have a great many interested working alumni.

Mr. Everett Morss, '85, then stated that the Alumni Fund Committee had not issued a call, as its policy was not to go to the alumni with a request for funds until the site has actually been secured. The site matter he believed would be cleared up very soon, and meanwhile a strong organization was being formed of class and local representatives, and when the call was finally sent out, the machine would be a very efficient one. He spoke in detail of the methods which would be employed by the committee, which were to be conducted in a scientific spirit, in order that the enterprise might be a great credit to the alumni and to Technology. In his opinion this was the greatest opportunity that had ever been offered to the alumni of any educational institution. He said that, while the matter of architecture and of academic atmosphere would be an important consideration, the first thing to be considered was that the buildings should be suitable for the purposes of giving men a technical education.

The financing of the Alumni Association was then considered briefly. President Rollins, '78, said that methods suggested were

raising of the dues, asking classes to help support the association, and by increasing advertising in the **TECHNOLOGY REVIEW**.

Doctor Noyes, '86, thought if the suggestion was made when statements of dues were sent out, that contributions would be welcome, that the checks might be increased in size.

Mr. Fay, '93, thought that we could collect more than 55 per cent. of the dues if the matter of collection was taken up in a business way, using a regular follow-up system of letters. This might also apply to securing new members.

Mr. A. D. Fuller, '95, thought we should not have higher dues, but more paying members, and believed that a larger percentage of dues could be collected.

It was voted that the president name a committee which should take up the matter of collecting dues, and increasing the membership of the association.

Carl Gram, '09, told about the new Tech button that is soon to be adopted by the undergraduates and a number of the alumni associations.

N. E. L. A. Convention in Seattle

The National Electric Light Association will meet in Seattle this summer, and the Technology Club of Puget Sound will be glad to get the names of any Tech men who intend to be present. The secretary is L. A. Wallon, '04, care the Seattle Electric Company, Seattle, Wash. This club is one of the most enthusiastic of all the alumni organizations, and will probably make some arrangement to get together during the convention. The secretary also suggests that the club may be of some service to Tech men visiting Seattle at that time. Any courtesy will be cheerfully extended.

EARNING POWER OF TECHNOLOGY ALUMNI

A collection of interesting statistics bearing on the earning capacity of Institute men, taken from class reports during the last fifteen years

Now that the Institute is engaged in working out a comprehensive and ambitious program of new development—a program which will both demand and justify the most generous support of all Tech men, it is interesting to study the data as to the financial resources and economic efficiency of this great constituency.

Statistics of earning power or professional income have been published by several alumni classes, in their catalogues or in *The TECHNOLOGY REVIEW*.

The large class of '93 published statistics in 1903 based on replies from 185 members, and in 1908 on 152 replies, showing at the earlier date average annual income from "professional or business efforts" of \$3,082. The median income of the man at the center of the scale was about \$2,400. Five years later, or fifteen years after graduation, the average had increased from \$3,082 to \$5,576, or 80 per cent.

The class of '94 in its decennial catalogue gave statistics for 131 members, agreeing fairly well with the corresponding figures for '93. The average, \$3,401, is somewhat higher; the median, \$2,100, on the other hand, somewhat lower.

Ninety members of '95 ten years after graduation also averaged about \$3,000 professional income, with a median "a little less than \$2,500," while for '96 the figures for 151 men are: average \$3,107 and median \$2,500.

In dealing with any such statistics, it is perhaps necessary to assume that while due precaution was taken in each case to protect the anonymity of the writer, the man of small professional income may have been less likely to reply, and that the results are therefore somewhat too high. The evidence of the four classes would, nevertheless, appear to prove that the Tech man

may nominally expect to earn more than \$3,000 per annum within ten years after entering on his profession.

The data as to later income are as yet hardly sufficient to warrant an extension of the inference, though the fifteen-year returns from the class of '93 are certainly significant.

It is a temptingly simple computation that the 10,000 Tech men, averaging ten years in professional life, are earning \$30,000,000 per year, and that their earnings for one month would build the New Technology.

Inasmuch as the matter of salaries is coming up for attention just now, it will be interesting to append hereto the detailed results of salary canvasses hitherto made by several of the classes:

The class of 1893 made a canvass early in 1909, and received replies from 152 men. The total professional income ranged from \$1,000 to \$52,500; average \$5,576, of which 38 men received incomes above, and 114 below the average figure. The seventy-sixth man on the list, that is, the man numerically half-way between the highest and the lowest, received an income of \$3,200. The figures in detail are as follows:

INCOMES	NUMBER	INCOMES	NUMBER
\$1,000 to \$1,499	5	\$7,500 to \$7,999	5
1,500 " 1,999	15	8,000 " 8,499	2
2,000 " 2,499	22	8,500 " 8,999	0
2,500 " 2,999	25	9,000 " 9,499	1
3,000 " 3,499	11	9,500 " 9,999	0
3,500 " 3,999	10	10,000 " 14,999	6
4,000 " 4,499	9	15,000 " 19,999	4
4,500 " 4,999	8	20,000 " 29,999	2
5,000 " 5,499	7	30,000 " 39,999	1
5,500 " 5,999	3	40,000 " 49,999	1
6,000 " 6,499	5	50,000 and above	2
6,500 " 6,999	3		—
7,000 " 7,499	5		152

For comparison, the data of incomes obtained in past years from the class of 1893, principally at the annual dinners, is given:

	AVERAGE OF	HIGHEST	LOWEST	AVERAGE
1896	20	—	—	\$1,098
1897	—	—	—	1,100-1,200
1898	20	—	—	1,520
1899	20	2,400	900	1,387
1900	19	3,300	960	1,900

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	AVERAGE OF	HIGHEST	LOWEST	AVERAGE
1901	—	—	—	2,060
1902	24	—	—	1,991
1903	185	35,600	500	3,082
1905	18	5,000	1,100	2,703
1906	14	5,000	1,200	3,318
1907	13	6,000	2,400	4,061
1908	152	52,500	1,000	5,576

The class of 1894, after ten years out, received reports from 131 men; 87 of these were graduates, and 44 non-graduates.

	GRADUATE	NON-GRADUATE	
Below \$1,000	1	1	2
1,000 to \$1,499	10	5	15
1,500 " 1,999	21	12	33
2,000 " 2,499	13	5	18
2,500 " 2,999	11	3	14
3,000 " 3,499	12	3	15
3,500 " 3,999	4	1	5
4,000 " 4,499	3	3	6
4,500 " 4,999	2	0	2
5,000 " 5,999	4	3	7
6,000 " 6,999	0	2	2
7,000 " 7,999	2	0	2
8,000 " 8,999	0	1	1
9,000 " 9,999	0	0	0
10,000 " 14,999	3	3	6
15,000 " 19,999	1	0	1
20,000 " 24,999	0	1	1
Above 25,000	0	1	1
	87	44	131

Total yearly salary for 131 members of class reporting is \$445,550. Average salary, \$3,401.

The lowest salary reported is \$450; the highest \$30,000. Excluding salaries of five figures the average for the remainder of the men reporting is \$2,580. A figure which is perhaps more nearly representative for the class is found by determining the salary of the middle man, that is the sixty-sixth man on the list. This falls in the group of salaries ranging from \$2,000 to \$2,499 and in the 113 salaries tabulated the median is \$2,100.

The class of 1895, after ten years out, gave the following figures.

The three lowest salaries reported were "nothing," \$600 and \$850. The three highest were \$12,120, \$22,500 and "not over \$50,000."

Below \$1,000	4	\$5,000 to \$5,999	3
1,000 to \$1,499	6	6,000 " 6,999	1
1,500 " 1,999	17	7,000 " 7,999	2
2,000 " 2,499	21	8,000 " 10,000	1
2,500 " 2,999	10	Above 10,000	3
3,000 " 3,499	7		—
3,500 " 3,999	11		90
4,000 " 4,999	4		

The class of 1896, after ten years out, gave the following figures:

113 graduates receive a total of	\$334,334 annually.
38 specials receive a total of	134,848 annually
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151 or total reported receive	\$469,182 annually.

The smallest salary is \$728, while the highest man receives \$20,000. The salaries are distributed as follows:

	GRADUATE	SPECIAL	CLASS
Below \$1,000	2	0	2
1,000 to \$1,499	8	7	15
1,500 " 1,999	24	6	30
2,000 " 2,499	21	6	27
2,500 " 2,999	17	2	19
3,000 " 3,499	13	5	18
3,500 " 3,999	9	2	11
4,000 " 4,999	6	1	7
4,500 " 4,999	0	0	0
5,000 " 5,999	5	3	8
6,000 " 6,999	2	1	3
7,000 " 7,999	1	0	1
8,000 " 8,999	2	1	3
9,000 " 9,999	0	0	0
10,000 " 14,999	1	4	5
15,000 " 19,999	1	0	1
20,000 " 24,999	1	0	1
Above 25,999	0	0	0
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	113	38	151

The average salary of the graduates is	\$2,958
The average salary of the specials is	3,548
The average salary of the class is	3,107

The salary of the 76th or median man is.....	\$2,500
The average income of the class eliminating the two lowest salaries is . . .	3,138
Eliminating the two highest.....	2,914
Eliminating the two lowest and two highest.....	2,942

Considering the median man's salary \$2,500 as the average, 49 per cent. are below the average and 45 per cent. above, while 6 per cent. have the average salary.

The class of 1898, after five years out, give the following figures: In all, 200 men furnished an estimate of their annual income from "professional or business efforts." The aggregate yearly earnings of these 200 amount to \$397,765, or an average of \$1,989 per head. The median salary lies between \$1,500 and \$1,600. The average salary of the graduate is \$2,030; that of the non-graduate is \$1,901. Salaries arranged in classes according to magnitude:

SALARY	GRADUATES	NON-GRADUATES
Less than \$500.....	3	1
More than \$500 and less than \$1000.....	4	6
\$1,000.....	6	7
More than \$1,000 and less than \$1,500.....	26	13
\$1,500.....	21	4
More than \$1,500 and less than \$2,000.....	37	10
\$2,000.....	9	4
More than \$2,000 and less than \$2,500.....	9	7
\$2,500.....	4	4
More than \$2,500 and less than \$4,000.....	8	7
More than \$4,000 and less than \$10,000.....	7	0
\$10,000 and upward.....	2	1
	136	64

The class of 1902, after being five years out, gave figures made from returns by 192 men, of which 128 were graduates:

	GRADUATES	NON-GRADUATES	TOTAL
Gross salary.....	\$273,000	\$134,080	\$407,080
Average salary.....	2,133	2,095	
Least salary.....	900	750	
Greatest salary.....	7,500	6,500	

The following table gives the results in detail:

	GRADUATES	NON-GRADUATES
Below \$1,000 per year	1	4
Between 1,000 and 1,199	9	2
Between 1,200 and 1,399	15	11
Between 1,400 and 1,599	20	10
Between 1,600 and 1,799	15	4
Between 1,800 and 1,999	20	6
Between 2,000 and 2,249	17	6
Between 2,250 and 2,499	7	0
Between 2,500 and 2,999	6	10
Between 3,000 and 3,999	12	5
Between 4,000 and 4,999	2	3
5,000	3	2
Above 5,000	1	1
	—	—
	128	64

The following table shows the results of similar salary votes taken at each annual dinner, class of 1902:

February 20, 1903,	Average of 51,	\$793
June 7, 1904,	Average of 60,	1,073
June 6, 1905,	Average of 28,	1,200
June 5, 1906,	Average of 18,	1,343
June 4, 1907,	Average of 30,	1,571

The class of 1908 took a canvass in June, 1910, and gave the results of 126 replies:

	GRADUATE	NON-GRADUATE	TOTAL
Below \$750	11	3	14
750 to \$899	6	2	8
900 " 999	16	3	19
1,000 " 1,099	12	2	14
1,100 " 1,199	3	1	4
1,200 " 1,299	21	3	24
1,300 " 1,399	6	5	11
1,400 " 1,499	2	0	2
1,500 " 1,599	8	4	12
1,600 " 1,799	1	0	1
1,800 " 1,999	1	3	4
2,000 " 2,199	1	0	1
2,200 " 2,399	1	0	1
2,400 " and above	3	3	6
	—	—	—
	92	29	121

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The same class took another vote in June, 1911, and gave the result of 141 replies. The average salary of the 104 graduate members was \$1,418.30; the average salary of the 37 non-graduate members was \$1,664.81.

	GRADUATE	NON-GRADUATE	TOTAL
Below \$750.....	3	1	4
750 to \$899.....	4	1	5
900 " 999.....	8	2	10
1,000 " 1,099.....	12	7	19
1,100 " 1,199.....	0	1	1
1,200 " 1,299.....	18	2	20
1,300 " 1,399.....	9	2	11
1,400 " 1,499.....	4	2	6
1,500 " 1,599.....	19	4	23
1,600 " 1,799.....	4	3	7
1,800 " 1,999.....	9	5	14
2,000 " 2,199.....	7	0	7
2,200 " 2,399.....	1	2	3
2,400 " and over	6	5	11
	—	—	—
	104	37	141

The decennial catalog of 1896 gave the following comparison of salaries for the classes of '93, '94, '95, and '96; after ten years out:

	'93	%	'94	%	'95	%	'96	%
Below \$1,000	2	1.1	2	1.5	4	4.4	2	1.3
\$1,000 to 1,499	32	17.3	15	11.4	6	6.7	15	9.9
1,500 " 1,999	43	23.2	33	25.2	17	18.9	30	19.8
2,000 " 2,499	31	16.8	18	13.7	21	23.4	27	17.9
2,500 " 2,999	20	10.8	14	10.7	10	11.2	19	12.6
3,000 " 3,499	21	11.4	15	11.5	7	7.8	18	11.9
3,500 " 3,999	10	5.4	5	3.8	11	12.2	11	7.3
4,000 " 4,499	6	3.3	6	4.6	4	4.4	7	4.6
4,500 " 4,999	1	.5	2	1.5				
5,000 " 5,999	5	2.7	7	5.3	3	3.3	8	5.3
6,000 " 6,999	2	1.1	2	1.5	1	1.1	3	2.0
7,000 " 7,999	1	.5	2	1.5	2	2.2	1	.7
8,000 " 8,999	1	.5	1	.8			3	2.0
9,000 " 9,999					1	1.1		
10,000 " 14,999			6	4.6			5	3.3
15,000 " 19,999	10	5.4	1	.8	3	3.3	1	.7
20,000 " 24,999			1	.8			1	.7
Above 25,000			1	.8			0	
	—	—	—	—	—	—	—	—
	185	100.0	131	100.0	90	100.0	151	100.0

UNVEILING THE PORTRAIT OF MRS. ROGERS

Addresses made by President Maclaurin and Professor Sedgwick
at a convocation of students on the Anniversary of Mrs.
Rogers' Birthday

The unveiling of the portrait of Mrs. William Barton Rogers at the Massachusetts Institute of Technology March 4, was an impressive occasion, with the student body, the instructing staff and invited guests filling the spacious Huntington Hall. The beautiful painting was well displayed on the platform. President R. C. Maclaurin and Professor W. T. Sedgwick were the speakers.

"In April last," began Doctor Maclaurin, "we celebrated the fiftieth anniversary of the birth of the Institute, which drew the breath of life from Rogers, who guided it through the difficult and dangerous period of its infancy with dauntless courage and with consummate skill. Since his departure, not Boston alone, but the world, has grown to know how fruitful were the ideas that originated with him.

"He has built for himself a memorial that will never die," continued Doctor Maclaurin, "and with Institute men particularly, his name will be held in honor everywhere and always. It should be so also with Mrs. Rogers, whose memory we honor today. Those who knew the inner history of the Institute's foundation, realize that but for Mrs. Rogers, it would probably never have been, and those who have followed its later development appreciate to what an extent its upbuilding was due to her inspiration. Technology was her only child; for it she lived and into it she breathed something of her own matchless spirit of loyalty to high ideals. She died a few weeks after the celebration of its jubilee, and left it almost all that could be bequeathed.

"Among these bequests was this portrait of herself, which, through its association with her, will be cherished by Institute men and women as long as they appreciate what is noblest and best in the human race. Hers was a character of singular sincerity and a personality of unique charm, as all agree who have had the good

fortune to know Mrs. Rogers. There are many such here, but to the younger, she is only a name, and it is that the Tech students of today should learn something of one to whom Technology owes so much, and who never failed to win the homage of Tech men of earlier days that met her, that I have asked Professor Sedgwick to speak to you of her on this anniversary of her birth."

"Thirty years ago, in this hall and on this platform," began Professor Sedgwick, "the distinguished Founder and first President of the Massachusetts Institute of Technology, Professor William Barton Rogers, in the course of an address to the graduating class on Commencement Day, sank to the floor and died. 'All his life,' said General Walker in commenting on the occurrence, 'he had borne himself faithfully and heroically, and he died as a good knight would surely have wished, in his harness, at his post and in the very part and act of public duty.'"

Professor Sedgwick continued, "This event," he said, "marked the end of the first epoch in the life of the Institute, but for one woman in the hall it marked also the end of a long and happy partnership in life. A year ago another milestone was marked for the Institute with the passing on of that same woman and the removal from our midst of the last of those who from the very start had conceived the ideal of a great modern polytechnic Institute, followed it with devotion, cultivated it with inspiration, watched over it in days of darkness and rejoiced in its hours of triumph.

"We have met today to honor her whom we may well call the mother precisely as we may call her beloved husband its father. This is the eighty-eighth anniversary of her birth, for Mrs. Rogers was much younger than her husband and survived him almost thirty years.

"Professor Rogers was born in Pennsylvania but reared and educated in Virginia, where in the celebrated university of that name he spent much of his early and middle life, serving the State meanwhile in various ways. He was primarily a physicist but was skilled in geology. In 1845 he made with his brother a visit to the White Mountains. It was while on this journey that he made the acquaintance of James Savage of Boston, whose eldest daughter, Emma, afterwards became his wife.

"Mr. Savage was an able and successful lawyer, with a hobby for genealogy, being best known as the author of Savage's Genea-

logical Dictionary, a monument of painstaking and accurate research. The mother of Mrs. Rogers was Elizabeth Stillman Lincoln of Machias, Me., and Emma Savage had every advantage which life in Boston in these days afforded to young people of good family and social standing. Her residence was in the family dwelling in Temple Place, and she retained always possession of it, latterly one of the most highly rated pieces of real estate in Boston. This passed at her death to the Institute.

"Emma Savage attended the best schools of the day and was thoroughly trained in English and other studies which were regularly taken by the young women of her time. She was vivacious, gay and witty, so it is no wonder that the young professor from Virginia on making her acquaintance quickly capitulated.

"After her marriage Mrs. Rogers spent several interesting years at the University of Virginia, where he became practically the president, but as time went on the shadows of the coming conflict between North and South grew darker and she and her husband, both of whom sided with the North, were glad to seize the opportunity to remove to Boston, which they did in 1853.

"As early as 1846 Professor Rogers had noted the rare opportunity which existed in Boston as a centre of industrial activity for the establishment of a polytechnic school, altogether different from the scientific schools that were just coming into being at Harvard and at Yale. He was particularly struck by the work of the Lowell Institute and now that he was living in Boston and free to give his hand to the subject, Professor Rogers threw himself with earnestness into the cultivation and the promotion of some such plan.

"Professor Rogers made friends rapidly and the position of his wife in Boston society was of great and fundamental advantage in his new work. They were always a unit in scientific ideas and educational aspirations. In the controversy then beginning to rage over such ideas as Darwin shortly after propounded they stood together against the more conservative ideas of Agassiz, side by side with Asa Gray and others in favor of evolution. In 1859 appeared the 'Objects and Plea for an Institute of Technology' outlines of the new scheme and in 1861 came the charter of the Institute, but alas! along with it the Civil War, so that until 1865 the school of industrial science or the Institute as we now know it, was not opened. Then followed years of anxiety and struggle

against financial difficulties, ill-health on the part of President Rogers and criticisms and rivalries such as any new educational scheme of the kind must necessarily encounter. Throughout it all, however, Mrs. Rogers was a firm rock of defense, an anchor of hope and a beacon light to encourage her husband.

"And when at last in 1870 he fell ill and was forced to resign the presidency, Mrs. Rogers became his most devoted companion and nurse, caring for him tenderly during the six or seven years ensuing when his life at times seemed to hang only by a thread.

"Then came those days of dark adversity when financial and other troubles fell on the Institute and some of its best professors were forced to go elsewhere, and when, in order to save it President Rogers, feeble as he was, had again to take the helm. From 1878 until his death in 1882 he stood manfully at his post until he was able to pass on the presidency to his chosen successor, General Francis A. Walker. The strain of these years and the shock of his death were too much for Mrs. Rogers and she withdrew from active interests for several years.

"At last she began to take up again the work of life, the chief of which was her beloved Institute, and those of us, who like myself, then first began to know her, found her a charming, gracious, cultivated woman of the world, fond of music, fond of art, devoted to charity, but full of humor, anecdote and wit; a generous hostess, scientific to the uttermost and so devoted to the Institute that it always had the first place in her thoughts.

"Whether at her home in Newport or on Marlborough Street, no Institute man, instructor or student, but found her door of hospitality wide open. Those of us who have wandered with her about the lawn at Newport and admired her devotion to her beautiful flowers, will never forget her noble figure in that delightful setting. Those who have sat at her table or about her fireside in Boston, those who have witnessed her enjoyment of concert or opera, and any who have observed her interest in the Old World and its treasures, will never need to be told what a wonderful woman she was.

"And now on this anniversary of her birthday we receive with gratitude and affection from her own hand this speechless but eloquent representation of her face, which we shall place lovingly and tenderly on the wall of the Rogers Building, there to remain till we migrate to the new home of the Institute beside the basin

of the Charles. There beside the river will the young life in which she was so much interested come, generation after generation, following the truth, as she and her husband followed it, in training for public service such as they would have approved, and loyal to her memory which with that of her husband we will forever treasure and forever keep green."

Richard Cockburn Maclaurin

The magnificent gift of an unknown benefactor, to the school, is a striking tribute to the splendid work done by Richard Cockburn Maclaurin for the new Technology. Ever since the scheme has been decided a long list of masterpieces in diplomacy have been devised by this man. When we take into account the fact that our President is a New Zealander, working in a strange country under, to a certain extent, adverse conditions, an admiration must arise for his power in handling men, and accommodating himself to circumstances, which cannot fall far short of worship.

The clear, concise way in which the site problem was set before a band of primarily opposed councilors, and the quick way in which they arrived at a favorable decree was an example of his master mind. Then his wonderful aptitude for judging men and his magnetic personality are well illustrated by the way in which he prevailed on two men to provide, the one, the site, and the other the buildings.

While on the recent western tour he caught the country by his splendid treatment of fundamental educational considerations; he was himself surprised at the high estimate in the West of the value of technical education and enormous dependence of the large corporations on technically trained men.

The anonymity of the gift is a pleasing phase, the fact that the benefactor gave it from his heart, and also that he was not a Technology alumnus is a proof positive of the enormous number of friends we have. He learned of the prominence of the Institute in the world by his contact with prominent men in England and Germany.

Our heartfelt gratitude goes out to our benefactor for the magnificent gift, and with it our heartiest congratulations to Richard Cockburn Maclaurin for the splendid tribute to his wonderful work.—*The Tech* March 14.

INTERESTING FEATURES OF THE PRESIDENT'S REPORT

Satisfactory growth of Co-operation among student activities—
Athletic exercise encouraged and health of students excellent
—Interesting reports of departments

The annual report of the President of the Massachusetts Institute of Technology, including also reports of administrative officers and heads of departments came from the press early in the year. Portions of the special report of Doctor Maclaurin were presented a short time ago, mentioning the large sums, aggregating two millions and three-quarters, that came to the credit side during the year, the solution of the site problem, the presentation of the question of new buildings, the new Summer Civil Engineering Camp, the Congress of Technology and the prosperous outlook of the Institute. This is here presented in full.

The report of Professor A. L. Merrill, secretary of the Faculty, presents among other items the special attention which the Institute gives to the linguistic needs of its foreign students. The plan is that such students—bred in a foreign tongue—may receive special instruction in English, and have this treated or counted as would be French or German in case of English-speaking students, provided they can show a knowledge of their own literature equivalent to that required in English for the English-speaking students.

In June, 1911, the Faculty recommended one student for the degree of doctor of philosophy, one for doctor of engineering, twenty for master of science and two hundred and thirty-one for bachelor of science.

In his report Dean A. E. Burton notes the improvement in the conditions of social life at the Institute. The student organizations are managed more efficiently each year, the upper-class men generally taking their responsibilities more seriously. There are various student boards, the Institute Committee, Finance Committee and advisory boards all working to make the "student activities" financially well based, and to furnish good business

training. The students a few years ago published the book, "Concerning the Massachusetts Institute of Technology," a volume that has done much towards presenting the problems of student life. A new and revised edition is in contemplation.

The student initiative is a feature at Technology. There was never a Faculty committee on athletics, for example, for the students have worked out their own problems. There is a complete system of undergraduate government, and so successful is it that the interest of other schools and colleges has been thoroughly awakened. One of the actions of the Tech students has been to eliminate the foolish and dangerous features from the class contests.

An interesting item in the Dean's report is with reference to the employment of graduates. During the past year one hundred and twenty-seven graduates have filed applications with the committee. Most of these men already had situations, but were willing to secure better ones. During the same time one hundred and ninety-six applications were received from employers asking for the names of graduates. This number is not complete, for many requests are sent direct to the heads of the departments. "So far as the committee can judge," writes Professor Burton, "there are very few of our graduates out of employment, and a very small number of them care to engage in teaching."

The health conditions that have prevailed the past year follow the excellent standards of the health of Tech students. Among the thirty-six fellows and graduate-students, there were no cases of illness; while in the fourth year class of 304, only eighteen were recorded. In the four classes and post-graduates, numbering in all 1,506 students, there were only 231 cases of illness, the freshman class with one quarter of the students furnishing one half the cases. The splendid figures are pretty accurate, for there is required a physician's certificate for absence from physical training or military drill, while the gymnastic requirements of the first year bring the students under the eye of the doctor. The Institute furnishes a medical adviser, Franklin W. White, M.D., so that no student, no matter what his economies must be, need suffer injury to his health. The outcome of the figures of the health of the students shows that studying seems to agree with the young men, and the higher they get in grade, the better their health. There is also excellent justification of the Technology plan of enforced physical culture.

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Dr. Robert Payne Bigelow, librarian at Technology, reports accessions during the year to be 2,500 books, 900 pamphlets and 400 maps. The library, which is disposed in one central collection and fifteen special groups in the departments, now numbers 92,000 books and 26,000 pamphlets, with a circulation of 12,000 items.

The registration has been given before, but from provisional counts. The number for the first term of registered students was 1,556, besides which three not registered, two non-resident fellows and five non-resident candidates for advanced degrees. It is the largest in the history of the school, save the abnormal year, 1902-03. In addition there were students attending the summer school, who did not return for the regular year. The total number during the year would be more than 1600, and this would again be increased by the few students entered in the second term, but not the first.

The number of foreign students is 101, within one of last year; this is a notable increase in Chinese, 36 against 27 of last year. Fifty-five per cent. of the students are from Massachusetts, while the rest of the country is in general as well represented as last year. Boston has 243, Cambridge ties Newton for second place at 37, Brookline send 28, Newburyport and Somerville 23, and Lawrence 20; Malden, Lynn, Waltham, Medford, Melrose, Everett, Brockton and Winchester for suburban cities have from 10 to 20, and in this group is Springfield with 15. There are 23 other cities and towns that have 5 to 9 students at Tech. There are 11 students from Hawaii, Philippine Islands and Porto Rico. Massachusetts has 860 students; the rest of New England, 130 more; the Middle States, 163; the West Coast has 40 representatives; Washington, D. C., 13, and other states of large number; Ohio, 37; Illinois, 30; Missouri and Colorado lead, just west of the Mississippi with 12 and 11, while Texas has 17.

Among the professional courses at the Institute there have been two marked gains this year, mechanical engineering and chemistry. Sanitary engineering and electro-chemistry have likewise increased. Concerning the former Doctor Maclaurin has said that there are calls for important health places for more in number than the Institute can supply.

The number of men at Tech from other colleges is the same as last year, 192 but the number from American colleges is less.

There are 37 graduates of foreign universities, about 25 per cent. more than last year. There are 112 colleges represented, nine more than a year ago.

In the summer school the registration was larger than for several years and the proportion of those who attended to anticipate work was particularly large.

At the Institute the scholarships are to aid the students financially so no list of names is ever available. But the amount of this aid is large, in 1911, more than \$21,000. The number of students thus aided was 187 and in addition 80 students were aided by the State. The total number was 243, or one in six students.

Most of the details of the summer camp of civil engineering have been given. By the gift of two alumni a site has been purchased at Gardner Lake, East Machias, Me., where the foundations are already in place and the superstructure will be begun in the spring and the camp ready for use in the summer. The summer courses will be compulsory and will allow more time for the work in Boston. Professor C. M. Spofford, head of the department of civil and sanitary engineering, notes that Tech has a large representation in the American Society of Civil Engineers, which having a membership carefully picked is a high compliment to Technology.

In mechanical engineering Professor Edward F. Miller notes the changes in the retirement of Professors Gaetano Lanza and Peter Schwamb. The organization had been planned by Professor Lanza to meet such emergencies, so that a reassignment of subjects is all that has been necessary. There have been some changes in the schedule tending to more fundamentals and some less of the laborious work. An economy has been possible through the use of Instructor R. H. Smith's text-book on machine work. "It has been noticed," writes Professor Miller, "that the students ask fewer questions and less time is required for the general explanation in the lecture-room."

In the department of mining engineering and metallurgy, Professor R. H. Richards looks forward towards the new laboratory on the new site. In architecture the year is a notable one both in the number and strength of the students. Besides four graduate students from Tech there are 21 students here with college degrees and 24 others who have had college training. A new undergraduate society has been formed and the quarterly publication, the

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Technology Architectural Record is in excellent condition. There is need of much more room for this department. The department of chemistry and chemical engineering has been obliged to take room from the physics department. Many papers were presented to the scientific world by the instructing staff of the department, of which Professor H. P. Talbot is the head. In the research laboratory of physical chemistry Professor A. A. Noyes reports important investigations. In electrical engineering there has been a steady development of research. One result during the year has been an increase in the permeability of iron, another research is under way with reference to the efficiency of the electric vehicle, a study supported by the Edison Company of Boston. Other departments have been equally active and successful. It is a creditable showing.

Purchase of Site Closed

President Maclaurin, announced March 23, that the papers had been passed transferring the fifty acres of land on Charles River Esplanade and Massachusetts Avenue, Cambridge, to the Institute as a site for its new buildings and that the money had been paid over to the Ames estate and other former owners. The price paid was \$775,000. The school is free now to go ahead and build as soon as its plans are ready.

Fifty deeds transferring 2,300,000 square feet of land to Tech have been filed at the Registry of Deeds at East Cambridge. Part of the land is given by the state, and the city of Cambridge.

The recording of the deeds follows the action of Mayor Barry of Cambridge recently in closing and relinquishing all claims on Amherst Street, agreeing to extend Ames Street, and to make general improvements to cost \$10,000.

Concerning the Massachusetts Institute of Technology

A second edition of this book conceived and published entirely by the undergraduates will go to press very soon. It is a remarkable book and is an exhibition of loyalty to the Institute such as few colleges can show. Every Institute alumnus should have one and an enclosure of fifty cents in stamps will defray the expense. Order of Institute Committee, Massachusetts Institute of Technology.

ATHLETICS AT TECHNOLOGY

Doctor Rockwell presents significant statistics in his annual report to the Alumni Association—The accomplishments of the year outlined

Dr. J. A. Rockwell, chairman of the advisory committee on athletics at the Institute, presented his annual report to the Alumni Association in January. He notes that the policy adopted by the Institute is sane and sensible, and "our ability to regulate these activities," he says, "to the mutual satisfaction of student and Faculty is our ambition and we feel that each year we approach more nearly our ideal." A broader understanding of our athletic policy interests state and interstate committees and the topics they discuss include the number of hours set aside for athletic purposes, the regulation of the sports themselves and control of expenditure, amateur standing and the boundary line of professionalism, the training table, the professional coach, summer baseball and the improvement of certain games with a view to the better development of the play and the safeguarding of the individual's health.

Differing from other institutions, at Technology the professional trainer holds the unique position of having charge of all physical culture. He can not be classed with those who care only for squads of men, or who train or coach only for special events.

The distance of the athletic field from the Institute buildings interferes with the full consummation of the plans, since many students cannot avail themselves of the outdoor work. "The future, however," says Doctor Rockwell, "with the promise of a fine athletic field and gymnasium within the grounds of the New Technology, will find us in greater realization of the benefits of our policy. Even in this day we find more than one hundred students reporting regularly for track work, about forty in football practice and seventy in tug-of-war, which with twenty in tennis, make total of about two hundred and thirty students at the field." At this season the training, with the exception of the cross-country running,

is done in the gymnasium, but there is every prospect that with spring more students than ever will avail themselves of the Brookline field.

Doctor Rockwell presents in his report a very interesting review of the accomplishments of the Tech athletic teams during the year 1911.

January 6, indoor games, won by the seniors.

January 25, Technology defeated Harvard at Providence in the one-mile relay event, making the track record of 2 minutes, 45 2-5 seconds. In the two-mile race with Harvard, Tech was beaten in a close race.

February 6, dual meet between freshmen and sophomores, won by the freshmen, 43-29.

February 11, B.A.A. meet. Tech relay team beat Dartmouth for the third consecutive year, in 3 minutes, 9 1-5 seconds, making a new Tech record and within one second of the fastest recorded time.

February 19, New York A. C. games. Tech won the intercollegiate indoor relay championship. Of the race the *Boston Herald* makes the following comment: "The greatest achievement at the N. Y. A. C. games was accomplished by the M.I.T. relay team. To triumph over two such clever aggregations as Cornell and Syracuse was hardly expected, but it proved that Trainer Frank M. Kanalay, has developed the speediest quartet in the history of the institution . . . Cornell led up to the last relay, when Captain Salisbury uncovered a magnificent burst of speed which carried him to victory over the Ithacans and many yards in advance of Reidpath, Syracuse's intercollegiate champion quarter-miler."

April 8, freshman-sophomore dual meet; latter won. Freshman-sophomore cross country races; freshmen won, 23-57.

April 15, annual interclass games; seniors won 48 points.

May 1, dual meet with Brown at Providence; won by Tech, 94-32. At these games three Tech records were made:—pole vault, Salisbury, 11 feet, 5 5-8 inches; hammer throw, Metcalf, 130 feet and discus throw, Chamberlain, 117 feet, 1 3-4 inches.

May 8, freshmen and sophomores against the Harvard freshmen; won by the former, 71-46.

May 12, dual meet with Dartmouth at Hanover; won by Dartmouth, 85-45, yet so closely contested that three Dartmouth records were broken and two equalled, while six new Tech records were made.

May 25, N. E. Intercollegiate A. A. at Springfield. Williams, 30 points, Dartmouth second with 24 points and Tech third with 18.

At the 36th annual meeting of the Intercollegiate A. A. A. A. held at the Stadium, Dalrymple tied for first place with two Pennsylvania high jumpers at 6 feet, thus giving Tech 3 1-3 points and its first score in this association.

Du Pont competition cup was won by Salisbury with 438 points; McCloud, 409 and Gould, 309.

The Field Day of November 3 was won by the class of '14. The 1914 relay team established a new record, 4 minutes, 57 2-5 seconds. In conjunction with the Field Day the annual cross-country race was run with Harvard over the Tech course; Harvard won, 33-47.

November 16, annual dual cross country race with Brown at Providence was won by Tech, 40-45.

November 25, Intercollegiate A. A. A. A. cross country championships, Tech was fifth. Cornell, Harvard, Pennsylvania and Dartmouth were ahead of it in that order, with Yale, Syracuse, Brown, Princeton and Columbia following it.

December 2, annual Tech handicap cross-country race; won by Nye, '14.

The number of inter-class contests at Technology according to Doctor Rockwell has been increasing each year. This demonstrates the wisdom of the policy of making intermural sports attractive, which has been initiated and worked out at the Institute.

The Tech hockey team lost but one college game—to Harvard, 4-3—in the season. As to basket ball, the athletic committee feels that in this sport intercollegiate contests should not be encouraged. The examination and vacation periods come at Tech at times when the basket ball men should be practicing regularly and preparing for their contests. At the request of the student body interested in basket ball, the committee reinstated the sport, with the understanding that its management be entirely responsible for its financial status.

The matter of the crew has been held under question pending the selection of the new site. The cost is prohibitive so far as the committee is concerned. There can, however, be hardly any doubt about an efficient navy when once Tech takes up its Esplanade home.

MEMORIAL TO ELLEN H. RICHARDS

Country-wide project started to raise a fund of one hundred thousand dollars to provide some suitable memorial

The third annual meeting and luncheon of the Home Economics Association of Greater New York, held on Saturday, January 27, at the National Arts Club in that city, took the form of a memorial to Mrs. Ellen H. Richards, late of the Massachusetts Institute of Technology and president of the Lake Placid Conference of Home Economics and the American Home Economics Association. The literary program at the luncheon was in charge of Professor Helen Kinne, of the School of Household Arts, Teachers College, the president of the New York Association. At the last annual meeting Mrs. Richards was present as the guest of honor and gave an address on the "Conservation of Human Resources." Miss Kinne in introducing one of the speakers, said that probably there was no member of the club whose life had not been touched and quickened by Mrs. Richards. For herself, she said, she had two mental pictures of Mrs. Richards, one in her laboratory at the Institute of Technology and the other in her home with the flowers.

The first speaker was Miss Margaret Maltby, professor of physics in Barnard College. She told of her first contact with Mrs. Richards while she studied at the Institute in 1887 and of the constant thoughtfulness of the only woman teacher there for the girl students. She said:

"Mrs. Richards in an unusual degree combined the qualities of the prophet, the scientist and the practical optimist. She was constantly anticipating lines along which advance would be made. Her imagination was based on a solid foundation of scientific fact and her prognostications were seldom wrong. Her interests were broad and were not confined to any one science. This was shown by her study of medical books, by her use of the weather charts which came daily to her home, and by her activities in many scientific societies. With all this there was a sense of proportion,

an instinct for what was feasible, a practical method of attack, a wonderful power of analysis, which was often astonishing. She was a pioneer in scientific management in the case of the individual as well as of the institution and aimed for the maximum of efficiency for the individual and the race. Environment as expressed in food, shelter and clothing was but the means to an end, the betterment of the race."

Mrs. Mary J. Lincoln, first principal of the Boston Cooking School, told of Mrs. Richards' help in the early days of that institution (now merged with Simmons College), how she sometimes lectured at the school and more often the pupils went to her. At a later period when Mrs. Lincoln was preparing a text-book for public schools, Mrs. Richards gave advice and read proof. "Be careful, that may not be so in ten years," "Better say, 'so far as we know now,' " were some of her comments which prove how her own words were to be trusted.

Of particular interest was the announcement made by Mrs. Caroline Weeks Barrett, chairman of the Ellen H. Richards Home Economics Fund Committee. This committee is soon to make definite announcement regarding the memorial to Mrs. Richards which will take the form of a fund to be administered for research, and publications for advancing the interests of the home.

"We could not think of putting up a dead thing as a memorial to Mrs. Richards, a bronze tablet or even a building. She was a living argument for home economics. How shall we keep her alive? We must give her earthly immortality through a living memorial, something which shall continue to do Mrs. Richards's work with Mrs. Richards's spirit. For this woman who believed in the impossible and helped it to come to pass, it is not impossible for us to raise a hundred thousand dollars in dollar subscriptions from those who have felt her influence, to be invested by a board of trustees and used under their direction to establish the *Journal of Home Economics* and later for lectureships, research and publication according to the needs of the time. The collection of funds by personal canvass is soon to be initiated in a country-wide campaign which will enlist committees numbering over a thousand persons who will seek this uniform democratic contribution from men and women interested in advancing the welfare of the home through a memorial to this woman who as scientist and social engineer did so much for the home.—*Science*.

A STIR AMONG LOCAL ASSOCIATIONS

The President's visit created enthusiasm all along the line—Local Organizations strengthening and multiplying

THE TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA.—The Technology Association of Northern California held its mid-winter dinner in San Francisco on February 14. Mr. Miles T. Sherrill, '99, of the Institute Faculty was the guest of the evening and gave a very interesting and instructive talk on the Institute present and future. This is the first time that this association has had the benefit of a talk from one well acquainted with Institute matters and it aroused the interest of everyone present. The remainder of the evening was spent in social talk and several announcements from the Institute were read.

This association has established for its headquarters, through the kindness of Mr. William E. Leland, '91, Office No. 836 Merchants Exchange Building, San Francisco.—*Howard C. Blake, '06, Secretary, 3009 Deakin Street, Berkeley, Calif.*

ROCKY MOUNTAIN TECHNOLOGY ASSOCIATION.—Our president, Frank E. Shepherd, '87, addressed a large gathering of mine owners, mine managers, superintendents and foremen at Telluride on February 23 on the subject of mill design. This meeting was held under the joint auspices of the Colorado Scientific Society and the Colorado State School of Mines. It was the fourth or fifth of a series that have been held this winter for the purpose of bringing the practical mining men in the field closer to the mining engineers in the city. Other meetings have been held in Idaho Springs, Leadville and Central City and have been very successful in accomplishing their purpose.—Rens E. Schirmer, '08, is very much interested in the building of a fine hotel at the Hot Springs at Idaho Springs.—Timothy W. Sprague, '87, passed through Denver recently on his way to the Route County coal fields for the purpose of examination.—H. A. Wilcox, '87, has left Aspen, Colo., for a

visit with his people in Somerville, Mass., after which he expects to return to the West and settle in California. Wilcox has been in Aspen since the palmy days when silver was selling at over a dollar an ounce and has a very enviable record with the Smuggler Company.—M. T. Lightner, '06, has settled in Monte Vista, Colo., where he is interested in the trucking business and also in the local electric light plant.

The members of the Rocky Mountain Association were very sorry indeed that Doctor Maclaurin was unable to extend his Western trip farther west than Chicago as they would have considered it an especial privilege to entertain the President and to hear at first hand the recent developments at Technology.—G. M. Luther, '07, is succeeding admirably well as manager of the Denver office of an electric storage battery company.

The writer is interested in the development of industrial load for the Central Colorado Power Company and the United Hydro Electric Company.—*Walter H. Trask, Jr., '06, Secretary, Box 1802, Denver, Colo.*

BROOKLINE TECHNOLOGY ASSOCIATION.—At the graduation exercises of the Brookline High School, in June, 1911, this association presented a silver loving cup to a member of the graduating class in recognition of his excellent record in general studies during the last two years of his course.

On the same occasion a scholarship of \$250 was awarded to another member of the class, whose record was also exceptional, thus enabling him to enter the Institute in September.—*George Lawrence Smith, '97, Secretary, Brookline, Mass.*

THE TECHNOLOGY CLUB OF BUFFALO.—It was a very enthusiastic gathering that turned out to greet President Maclaurin on his visit to Buffalo, February 1, 1912. A dinner was given at the Buffalo Club and presided over by our senior alumnus, Mr. Maurice B. Patch, '72. Forty-three members attended the dinner, a larger number than has ever gathered at any previous meeting of the Technology Club of Buffalo.

After the dinner as the toastmaster arose, there was a tremendous cheer for the President and the familiar M. I. T. yell. In a very graceful little speech, Mr. Patch introduced the speaker of the evening, President Maclaurin. The President confined him-

self in his address, to a review of the Institute's work, and the plans which were to broaden its usefulness in the future. In speaking of the almost insurmountable obstacles that stared the various committees in the face when trying to solve the problems presented to them, it was easy to see that though he was extremely modest in mentioning the matter, the brunt of the work had fallen on the shoulders of the President, and we, as alumni, congratulate ourselves and congratulate the Institute, that the President is perfectly able to cope with all such questions, and is the right man at the helm.

We were greatly pleased with the way in which Massachusetts came forward with her substantial assistance, and raised to herself a perpetual monument, an example to others.

When the President concluded his remarks there was prolonged applause. Mr. Patch complimented the speaker on his interesting address and the splendid work accomplished, and then pleasantly recalled his own student days, in the early seventies, contrasting them with the advantages of the present, and paid a complimentary tribute to that friend of the Institute, and the mother of all the boys, Mrs. Stinson.

W. H. Watkins, '95, our president, was then called upon, and though he had but lately arisen from a sick bed, responded in his usual happy and original manner, finishing with a song, "What's the matter with Prexy?"

Father Ahearn, '06, professor of chemistry at Canisius College, was called next, and told us of some of his experiences while at Tech praising the hard-work-spirit which characterizes the work there. The secretary also made a few remarks.

The successful issue of this meeting was particularly due to the efforts of W. N. Corse, '99, H. P. Parrock, '01, and F. G. Lane, '02. Everyone gave a helping hand and in doing so, about eighteen or nineteen men were enrolled on our membership list so that the Technology Club of Buffalo has now a list of some eighty-five members. I am sure that President Maclaurin must realize that he has done a tremendous amount of good in visiting the alumni, awakening new interest, and increasing the fraternal spirit among the men who are located in this locality.

Club Notes.—On February 9, 1912, N. W. Shed, '81, was operated on for appendicitis and is still a very sick man, though im-

proving.—*Richard F. Morgan, '96, Secretary, 139 Oakwood Place, Buffalo, N. Y.*

TECHNOLOGY CLUB OF ALBANY, NEW YORK.—The second meeting of the Technology Club of Albany took the form of a dinner on February 21 at the Mohawk Club in Schenectady. In the absence of President McKim, who is traveling in Europe, Mr. Albert G. Davis '93, chief of the patent department of the General Electric Company, presided. Mr. I. W. Litchfield, '85 was the guest of the evening, and in introducing him Mr. Davis recalled, among others, an occasion when the officers of the cadet battalion as guests of his class (then Sophomores) took a trip down Boston Bay with an unexpected conclusion. Mr. Litchfield commanded the closest attention of his hearers as he described the plans and hopes for Technology in its new location on a tract nearly as large as the Common. He spoke of the organization of the campaign for State aid and warned the diners that the same well-tested methods of organization would be used in connection with the fund for new buildings now being started. Furthermore, not one of the buildings would be erected until after detailed and exhaustive study of other schools, so that the Institute will be a model of its kind for years to come. Mr. Litchfield also outlined the influence of the alumni upon the Institute both in undergraduate and Corporation affairs. Dr. W. R. Whitney, head of the General-Electric Research Laboratory, was full of confidence for the proposed Technology fund; he felt that assistance would come from the most unexpected sources.

Those present were: I. W. Litchfield, '85; Frederick Mackintosh, '86; W. R. Whitney, '90; A. G. Davis, '93; A. A. Buck, '93; W. D. Coolidge, '96; E. A. Brainerd, '97; J. B. Taylor, '97; L. A. Hawkins, '99; Russell Suter, '00; H. M. MacMaster, '00; W. C. Arsen, '01; R. C. Robinson, '01; H. B. Chalmers, '01, who has recently removed to Schenectady; G. T. Eager, '02; Robert Palmer, '04; S. Haar, '04; F. J. Schwarz, '05; E. H. Sargent, '07; Lee Hagood, '08; Stewart Thompson, '09. Messrs. Brainerd, Suter and Sargent are connected with the engineering commissions in Albany, while the remainder of the men, with the exception of Chalmers who is in private business, are with the General Electric Company at Schenectady.

The next meeting of the club will take place in April in Albany.—*Selby Haar*, '04, *Secretary*, 12 Grove Place, *Schenectady*, N. Y.

TECHNOLOGY CLUB OF RHODE ISLAND.—F. H. Rand, treasurer of Massachusetts Institute of Technology, and Dr. William T. Sedgwick, head of the department of biology, were the speakers at the annual dinner of the Technology Club of Rhode Island, which was held at the University Club, March 15.

About forty members and guests were in attendance when the retiring president, James G. Woolworth, who also acted as toast master, called the assemblage to order and after an interesting talk on the origin of the Tech colors, introduced Mr. Rand.

The Bursar, as he is called, spoke of the recent gift of \$2,500,000 received by the Institute and stated that the financial problems which had bothered the Institute had now been solved as had the problem of a site. The deeds for the land for the new site would be passed in a few days, and as an added word of cheer, he was able to say that in all probability it would be possible to sell for business purposes the Boylston Street property, something which it was formerly thought would not be possible because of some restrictions in the original deed. He paid high tribute to President Maclaurin, to whose indomitable perseverance, together with the loyalty of the alumni, the added prosperity of the Institute was due. A statement of unusual interest to the members of the club was that the total gifts to Tech during the past year amounted to \$5,250,000.

Doctor Sedgwick, who is a member of the Massachusetts Board of Health, discussed the problems of the Institute from the educational viewpoint and also touched on matters of public health. He said that while scientific investigation had shown the way toward decreasing the percentage of infant mortality, no way had as yet been discovered for cutting down the death rate of men over forty years of age. He praised the Tech type of man and said that it had been very pleasing to him that this type had received such general recognition, not only in this but in other countries. Much of Doctor Sedgwick's talk was in the nature of reminiscences of men and things at Tech, a topic that proved of keenest interest to his audience.

At the business session which preceded the dinner the following officers were elected: president, Col. Charles F. Tillinghast; vice-

president, William C. Dart; secretary and treasurer, Gerald M. Richmond; representative to the Alumni Council, Eleazer B. Homer; member-at-large of the executive committee, Arthur Eaton Hill. It was announced during the dinner that President Maclaurin had been expected to speak in this city on March 30, and that he had accepted an invitation to address the University Club to which many of the Tech Club members belong, on that date. A recent death in his family had, however, made it necessary for him to cancel all of his social engagements and he consequently would be unable to come to Providence.—*Providence Journal*.

TECHNOLOGY CLUB OF PHILADELPHIA.—The Technology Club of Philadelphia is flourishing with a membership of seventy-five which increases each year. The Bell Telephone Company, the two shipyards and the duPont Powder Company bring a large number of alumni to the city as well as many other manufacturing concerns.

The March meeting was a smoker at the Southern Club on the 20th. Morris L. Cooke, director of Public Works of the city of Philadelphia, gave an address on "Scientific Management as Applied to Education." Mr. Cooke has his views about the efficiency of the Institute's methods which are all the more interesting from their variance with our own opinions upon the subject.

The April meeting will be a departure from the usual custom of late years and will take the form of a strictly informal dinner. There will be some new features introduced at this dinner, one of the objects of which is to arouse enthusiasm for the annual Field Day in May. Field Day promises to be jollier than ever this year and will wind up the season, as usual, in a blaze of glory.

The reform administration in Philadelphia is seeking men of real merit for municipal positions and has conferred upon a Technology man the office of chief of the Electrical Bureau, one of the most important engineering positions in the city. The *Philadelphia Bulletin* prints the following:—

Clayton W. Pike, a widely known electrical engineer and a former instructor at the University of Pennsylvania, was recently named by Director Porter as chief of the Electrical Bureau of Philadelphia, taking the place of James S. McLaughlin.

Another member of the club who has been honored by the city

is James Reed, Jr., S.M., M.I.T. 1907, who has been appointed assistant director of Public Works. Reed was formerly assistant naval constructor, U.S.N., and has obtained a leave of absence from the Federal government to accept the municipal position.

It is intended to assist new Institute men coming to Philadelphia and vicinity in finding rooms and board. In order to carry out this plan, all unacquainted, or otherwise, are invited to write, previous to their coming, to a member of the society so that on arrival accommodations may be had at once. However, it will be possible to arrange for those who do not make this request previous to their coming by calling the same member on the telephone.

Inquiries may be addressed to C. F. Willard care Victor Talking Machine Company, Camden, N. J., telephone No. 990 Camden.—*Dudley Clapp*, '10, *Secretary*, 1421 Arch Street, Philadelphia, Pa.

TECHNOLOGY CLUB OF ROCHESTER.—In accordance with his prearranged itinerary, Doctor Maclaurin arrived in Rochester at 10.40 on Friday morning, February 2.

Messrs. Hoyt, '68, Lovejoy, '94, and Foote, 80, representing the Technology Club of Rochester, were waiting and after greeting the President conducted him to the University of Rochester. The president of the local university, Dr. Rush Rhees, was most anxious to become acquainted with our President and, after introductions by Mr. Hoyt a brief survey of the college was made. Doctor Maclaurin was presented by Doctor Rhees to the undergraduate body at 12 m. in the assembly hall and gave them a fifteen-minute talk. The *Rochester Democrat & Chronicle* covered this event and gave a three-quarter column article, quoting the salient features of the address. The secretary being unable to be present can only give a condensed version of the newspaper article and some personal versions as related to him. Doctor Maclaurin developed the thought that specialization in any line of scientific or technical work did not necessarily narrow or limit the intellect or mind of the specialist. If the person was mentally alert he would find that his specialty involved many correlated lines of a technical or scientific nature that demanded study, knowledge, and familiarity, and that these in turn involved others.

A study of these correlated subjects would give broad and liberal views.

Following the University of Rochester visit, the party went to the Mechanics' Institute where they were received by President Carlton Gibson and Mr. A. S. Crocker, '97, and joined by Messrs. Haste, '96, and the secretary. A very delicious luncheon was served by the ladies of the Domestic Science Course, after which Mr. Gibson conducted Doctor Maclaurin and party through the various buildings, shops and departments of the Institute. The Mechanics' Institute fills a peculiar and important part in local educational circles and is given life by donations of Rochester people; it gives industrial and semi-technical training to those desiring it. It is a school somewhat similar in character to Pratt Institute, Drexel Institute and Lowell School for Foremen.

Leaving the Mechanics' Institute, Doctor Maclaurin, Messrs. Hoyt, Lovejoy, Haste and Ancona were driven to Bausch & Lomb's, the largest manufacturers of lenses and optical instruments in the world where he met Messrs. Drescher, Edward Bausch, Carl and Adolph Lomb '93.

The dinner held at the Genesee Valley Club on the evening of February 2 was well attended—29 members out of 39 being present. The tables were arranged in the form of a T and decorated with flowers and Tech flags. Mr. Gibson of Mechanics' Institute was present as a guest.

Following an excellent dinner, Doctor Maclaurin made the speech of the evening. The following is a very brief and condensed statement of the points covered in his address:

That the Institute of Technology had received very important and valuable aid from graduates and former students, the work and ends being accomplished by these former students being done in the most thorough manner, and that the Institute was relying on further assistance of a similar nature from the alumni. The President briefly sketched the five important events of the preceding year in which former graduates took the initiative and pushed the question in hand to a successful end. First, the acquisition of a site for a civil engineering summer school, the selection of the same and arrangement for equipment, this entire work being done by two graduates. Second, the promise of five hundred thousand dollars, by Mr. du Pont, which in

addition to intrinsic value, had a much desired influence on the grant which was obtained from the Massachusetts State Legislature. The obtaining of this appropriation from the Massachusetts Legislature was the third event of the year and was only possible through the hearty, continuous and enthusiastic work of the committee of graduates. The fourth event was the Congress of Technology which was held in Boston last April. Mr. Little, a graduate, was the father of the scheme and through his efforts, aided by other alumni, the idea was carried out, being a most unqualified success. The fifth and last event was the determination of the site of the new buildings which has been definitely placed in Cambridge. Doctor Maclaurin stated that the object of his trip was not only to get in touch with former students to explain to them the great work that had been done by the graduate body in the past, but to ask their help in a solution of future problems. He spoke particularly of the conception and construction of the new group of Technology buildings, the care that would have to be taken in selecting the proper style of architecture, the coördination of the various buildings from an engineering standpoint, the social problem, dormitory and fraternity problem, all of these large features being aside from the thousand and one details requisite to properly heat, light and ventilate the buildings, see that they are well designed, of the proper strength and proper construction. He asked in conclusion that the members of the Technology Club of Rochester think on the question and feel at liberty to suggest such ideas as might occur to them, that it was a question where the thought and suggestions of the graduate body would be of material assistance to him and his associates in this work.

The following members were present; W. E. Hoyt, '68, F. W. Lovejoy, '94, A. S. Crocker, '97, J. F. Ancona, '03, O. K. Foote, '80, J. H. Haste, '96, C. C. Culver, '96, H. E. Alserly, '10, F. A. Cole, '91, George Fuller, '11, A. F. Sulzer, '01, F. D. Rich, '13, G. W. Everett, '09, W. P. Cress, '03, H. H. Tozier, '96, Sidney Alling, '10, Adolph Lomb, '91, N. C. Bent, '05, C. F. Wray, '96, C. K. Flint, '01, S. C. Allen, '06, J. C. Dryer, '99, B. C. Hopeman, '10, Farnum Dorsey, '01, D. E. Russ, '07, N. Duffett, '11, H. O. Stewart, '09, L. E. Dodge, '01, William Hoyle, '01.

The following morning, Saturday, February 3, Doctor Maclaurin visited the Kodak Park Works of the Eastman Kodak Company

and made an inspection of the plant under the guidance of F. W. Lovejoy, '94, and J. H. Haste, '96, manager Kodak Park. Following the inspection of this plant, Doctor Maclaurin was entertained at luncheon at the Superintendents' Lunch Club, a body composed of various department superintendents and engineers. Following the luncheon the President made a brief speech in which he explained the educational value of such a trip as he had made, to himself, as it enabled him, an educator and teacher, to come in touch with the executives and technical men of great and varied industries and that such personal contact with commercial conditions would be of great value to him in his capacity as President of a technical school.

Doctor Maclaurin left for Syracuse on the 2.24 going east.—*John F. Ancona, '03, Secretary-Treasurer, 190 Birr Street, Rochester, N. Y.*

TECHNOLOGY CLUB OF PUGET SOUND.—At a recent meeting of the club, it was voted to hold a regular luncheon on the third Tuesday of each month; the place to be decided on each month. It is probable that the rendezvous will change with each meeting, but it will be in Seattle, as the majority of the members are located here.

The National Electric Light Association convenes in Seattle next summer, and no doubt many Technology men will be in the city at the time. The Seattle Club would like to meet them, and extends a cordial invitation for visiting brethren to give the secretary notice of their coming, so that proper hospitality can be extended. We want to meet them, and let them know that we have a live organization here. Probably there will be an opportunity for a lunch or evening meeting, while the convention is on.—*L. A. Wallon, '04, Secretary, care the Seattle Electric Co., Seattle, Wash.*

WASHINGTON SOCIETY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.—The March meeting of the association was held at the University Club on March 4. Mr. Edwin W. James, '07, addressed the association on "Modern Highways, their Construction and Maintenance." Mr. James is general inspector of highways in the United States Office of Public Lands of the department of agriculture.—*Clifton N. Draper, '08, Secretary, 1860 Columbia Road, Washington, D. C.*



BANQUET OF TECHNOLOGY CLUB OF NEW YORK. JANUARY 13, 1912

THE TECHNOLOGY CLUB OF NEW YORK.—A portrait of Alexander Rice McKim, '86, by Louis Marks, the Austrian Court painter, was presented to the Technology Club of New York on Saturday, March 16, at a complimentary luncheon by the club to Mr. McKim. About fifty members were present, and G. W. Kirtledge, '77, the new president of the club, opened the meeting, and then turned it over to W. H. King, '94, who acted as toastmaster. King, C. R. Richards, '85, Ira Abbott, '81, J. P. B. Fiske, '89, and J. D. Moore, '95, all paid their tribute to the first president and founder of the club and McKim responded in a graceful speech. —*Walter Large, '79, Secretary, 15 William Street, New York, N. Y.*

WORCESTER COUNTY TECHNOLOGY CLUB.—Worcester County Alumni gathered March 30 for their annual banquet and after the dinner discussed the new Tech which is to be built.

President A. S. Haywood presided and addresses were given by Bursar F. H. Rand of the Institute, President J. W. Rollins of the general alumni and Eben S. Stevens of Webster of the Corporation. It was stated that about \$5,000,000 had already been raised, and that all the alumni were expected to contribute liberally to raise the amount desired.

Officers were elected as follows: A. S. Haywood, president; T. E. Davis, vice-president; L. E. Vaughan, secretary and treasurer; the officers with W. E. Buck and O. B. Denison, executive committee.—*Louis E. Vaughan, '02, Secretary-treasurer, 72 West Street, Worcester, Mass.*

THE HARTFORD TECHNOLOGY CLUB.—The Hartford Technology Club will hold their annual meeting at the Hartford Club, at No. 46 Prospect Street, Saturday evening, April 20. This meeting will be followed by a banquet, after which a lecture will be given by Professor Richard S. Lull, of Yale, on "Fossil Hunting in the West."—*George William Baker, '92, Secretary, Box 983, Hartford, Conn.*

TECH MEN IN THE PUBLIC EYE

VAN RENSSELAER LANSINGH, '98, was made president of the Illuminating Engineering Society, the national organization, in January. Mr. Lansingh attended the College of the City of New York and the University of Chicago before coming to the Institute where he was graduated in 1898. He specialized in mathematics, physics and electrical engineering. On leaving the Institute, he became connected with the Western Electric Company in an engineering capacity; later on became a consulting electrical engineer in Chicago. This was in 1901, and during that year he announced the beginning of his professional practice as an illuminating engineer. He took the agency for the Holophane Glass Company for Chicago, and later for all the territory west of the Appalachian Mountains. In 1904 Mr. Lansingh was made general manager of the sales department of the company, with headquarters in New York; he is now its general manager. Mr. Lansingh has contributed a large number of articles to the technical press and has read many papers before various engineering societies. He was the first treasurer of the Illuminating Engineering Society in 1906 and was again elected treasurer in 1911. He was general secretary of the society in 1907 and 1908 and vice-president in 1910 and 1911. He was co-author with Mr. J. R. Cravath of a book on "Practical Illumination."

MATTHEW C. BRUSH, '01, was recently appointed second vice-president of the Boston Elevated Railway Company. This office is newly established, and special duties will be assigned to Mr. Brush by the executive committee and the president. Mr. Brush has had an unusual railroad experience. He was graduated from the Armour Institute in 1897, and from Technology in 1901. He was first employed as an apprentice in the shops of the Union Pacific Railroad, and later on entered the service of the Chicago, Rock Island & Pacific. In 1904 he became assistant to the president of the Boston and Suburban Electric Railroad Companies.

At the end of eight months he was appointed general manager, and under his administration the road was placed on a sound financial basis.

About three years ago, Mr. Brush resigned, to become general manager of the Buffalo & Lake Erie Traction Co., but he was soon recalled to Boston by the Elevated Railway Company, to become chairman of their efficiency committee. His success here induced the Railway Company to create the new office of second vice-president.

CLAYTON W. PIKE, '89, has recently been appointed chief of the Electrical Bureau of the Department of Public Safety, in Philadelphia. Mr. Pike joined the staff of the University of Pennsylvania on leaving the Institute, and later on became an electrical contractor. He is a well-known contributor to the electrical press, and was one of the editors of the last edition of Roper's *Handbook for Engineers*.

ROBERT D. FARQUHAR, '95, a resident of Los Angeles, has been appointed by President Moore of the Panama-Pacific International Exposition as a member of the architectural commission of the exposition. Mr. Farquhar was a graduate of Harvard College before coming to Technology; he afterwards obtained his degree at l'École des Beaux Arts, at Paris.

JAMES F. BARNES, '05, has just been appointed chief engineer of the Utica & Mohawk Valley, Syracuse Rapid Transit Railway Company and Oneida Railway Company. Mr. Barnes has been connected with the Syracuse street railway companies since he was graduated from the Institute seven years ago, principally in the mechanical and electrical departments.

GEORGE C. WHIPPLE, '89, has recently been made a member of the Committee on the Standards of Purity for Rivers and Waterways. The appointment was made by the president of the national association for preventing the pollution of rivers and waterways.

F. C. LINCOLN, '09, has been appointed associate in mining and engineering at the College of Engineering of the University of Illinois. Mr. Lincoln was graduated from the New Mexico

School of Mines in 1904, from Columbia University in 1906, and after being graduated from the Institute, took his doctor's degree at Columbia in 1911. He has been for three years professor of geology and metallurgy at the New Mexico School of Mines, and for three years professor of geology at the Montana State School of Mines.

JAMES REED, JR., '07, lieutenant in the navy, has been made assistant director of the Department of Public Works of the city of Philadelphia. By a special dispensation of the Navy Department, he goes on leave of absence without affecting his status in the navy. Lieutenant Reed's appointment was made for the purpose of bringing especially efficient engineers to bear on the great problems of the city. Lieutenant Reed was graduated from the United States Naval Academy in 1902, and after serving on the battleship *Alabama* and on the *Scorpion*, he took the course in naval engineering at the Institute, receiving the degree of master of science.

ARTHUR B. FRIZELL, '88, has been appointed professor of mathematics in McPherson College, Kansas.

FRANK F. FOWLE, '99, has joined the editorial staff of the *Electrical World*. Mr. Fowle was connected with the American Bell Telephone Company from the year of his graduation up to 1908, the latter part of the time being manager of the long distance system in Chicago. Since 1908 he has been a consulting electrical engineer. He has been a prolific writer for the technical press.

ALPHONSUS J. DONLON, '94, who has been connected with the Georgetown University as student, teacher and adviser at various times during the last twenty-eight years has recently become president of that institution. In 1897 Father Donlon was made professor of physics at the college, holding the chair for five years.

GORHAM PHILLIPS STEVENS, '98, has been appointed director of the Academy in Rome, succeeding Mr. Frederic Crowninshield, who recently resigned. Mr. Stevens spent five years in study abroad after graduation, and since 1905 has been actively associated with the firm of McKim, Mead & White in architectural practice.

RICHARD G. TYLER '10, has recently been appointed as engineer to assist the State Drainage Commission of Texas in special problems. Since graduation Mr. Tyler has taught one year in the University of Texas, and is considered one of the best qualified hydraulic engineers in the state.

C.-E. A. WINSLOW, '98, was elected vice-president of the Society of Bacteriologists at the recent meeting of the American Association for the Advancement of Science, in Washington.

CHARLES G. ABBOT, '94, director of the Smithsonian Astrophysical Observatory, returned early in February from Algeria, where he has been making astrophysical observations in regard to the solar constant of radiation. The observations were begun in July, 1911, and continued until the end of November. From previous work in the United States, it had been determined that the sun was probably a variable star, and that its radiations frequently fluctuated from 2 to 5 per cent. during irregular periods of from five to ten days' duration. While Mr. Abbot was making these observations abroad, his assistant was making similar measurements at Mt. Wilson, California, the distance between the observing stations being nearly equal to one third of the circumference of the earth.

CLARENCE D. POLLOCK, '94, who has been acting chief of the Bureau of Highways in Manhattan since the resignation of General Bingham from the commissionership some months ago, has resigned his post to accept a position as chief engineer in charge of paving on the new paving and sewer contracts in Havana, Cuba. The work is under the supervision of the United States Government.

SELSKAR M. GUNN, '05, has recently been appointed editor of the monthly publication of the American Public Health Association, the *Public Health Journal*. After completing his course at the Institute in 1905, under Doctor Sedgwick, Professor Gunn remained a year with the Boston Bio-chemical Laboratory, where he had much experience in industrial biology. In 1906 he became first assistant bacteriologist to the State Board of Health of Iowa and lecturer in hygiene and sanitation at the Iowa State University. Early in 1908 he was called to the important post of health

officer at Orange, N. J., and under his charge the work for which Orange has been so celebrated was begun. Last summer he was appointed by the mayor of Milwaukee to make an efficiency investigation of matters relating to public health and sanitation. Professor Gunn is assistant professor in the Department of Biology and Public Health, at the Institute.

GEORGE B. FORD, '00, has been selected as one of the two experts to assist the City Plan Commission of Newark, N. J., a body created to investigate the various needs of the city. One of the duties of the commission will be the preparation of a historical map illustrating the business growth of the city since 1800. Mr. Ford entered the Institute after being graduated from Harvard.

HOLLIS GODFREY, '98, who has been engaged in an exhaustive investigation of the filtration system of the city of Philadelphia, has recently made a report reviewing the present conditions and making recommendations concerning the problems presented. Mr. Godfrey is a well-known sanitary engineer of Boston. He is the author of a number of professional books and papers, the best known of which is perhaps his last book, "The Health of the City."

Walker Memorial

It will be welcome news to all Tech men, that plans for the Walker Memorial are at last approaching definite shape.

At a recent meeting of the committee at which President Maclaurin, Dean Burton, and Chairman Rockwell of the Advisory Council were present, it was voted after general discussion of the whole situation, to request President Maclaurin to appoint a committee representing the various interests to work out definite plans. Dr. Maclaurin has appointed as such a committee: Dr. Tyler, and Mr. Bemis of the Walker Memorial Committee; Dean Burton, and Dr. Noyes of the Faculty—they are also trustees of the Cilley fund; Dr. Rockwell of the Advisory Council on Athletics.

This committee is holding frequent meetings and conferences with representatives of the undergraduate organizations, alumni and others. It invites suggestions and correspondence with readers of the REVIEW, on all phases of student needs, physical, social, recreational, etc.

TECH'S GOOD FORTUNE

Technical education is coming to its own and obstacles are fast disappearing in the way of the greatest agency for its advancement, in this country if not in the world. The Institute of Technology is to be heartily congratulated upon the good fortune whose announcement has been such a glad surprise to the readers of the morning news. The sum of two and a half millions from a single donor is munificent, but that is not its best feature. It might easily have been tied up with conditions which benefactors always feel that they have a right to impose, but nothing of that sort has been done. It is a free fund to be applied where it is needed by those most familiar with immediate requirements. It is not for the purpose of strengthening one or two members or providing for an enlargement that might easily become an additional burden, but instead something that enriches the life-blood of the entire system and sends it coursing with new vigor and power.

The manner and extent to which responses have come to appeals for fresh resources for the institution the past year have been significant and admirable. The alumni are doing large things in the world, but "Tech" is still so comparatively youthful that only a few have acquired fortunes that will enable them to put their shoulders under the burden called for by its new aspirations, with the effect that is needed, though their contributions have figured quite loyally and largely. But it is appealing as never before to the hard and long-headed men of affairs, the men who do things and who are glad to give aid and encouragement to those agencies that make for the world's advance.

It is sometimes necessary to go away from home to see our own blessings through a clearer prospective. The author of this new benefaction had his enthusiasm aroused and his public spirit stimulated by the reputation which he found "Tech" enjoyed abroad, especially in Germany, where technical education is held in higher favor and honor than almost anywhere else in the world, and not only abroad, but at home, tributes have recently

been paid to the value of its service from sources that command the highest respect.

Within the past year more than \$4,000,000 have been pledged to the Institute, if we include what the state has decided to do for it, and during that time this is the second anonymous gift that has come to it. It is in a position not only to begin upon plans that are little less than noble in their inception, but also to carry them forward with practical assurance that they will not be halted for lack of means. But it is not alone the Institute and its alumni who are to be congratulated. The cities of Boston and Cambridge, the State of Massachusetts and to no small degree New England and the country feel the thrill of the new force for the highest technical training which the events of the past year, now so brilliantly crowned, have made available.

But it must not be supposed that all this has been a fortuitous matter. Back of all the fresh recognition that has been given to the institution, have been the devoted efforts of a wise and untiring directing head. President Maclaurin has won not only the good will of alumni and undergraduates, but the confidence and admiration of the shrewdest men of the nation, who feel that he is working in their interests and the interests of the whole people. Three years ago a writer in the TECHNOLOGY REVIEW said the Corporation had been very fortunate in securing the services of so eminent and well trained a man, and added: "In this connection, however, the alumni should bear in mind that no man, be he ever so sagacious and devoted, can expect to solve single-handed the problems that now confront the Institute," and he bespoke "heartly coöperation with him in all his endeavors, and especially by a substantial and generous support of his financial policy." That policy has been so sane and progressive that it has invited such coöperation and support, and now the harvest is fast ripening. If there is a "Tech" man who is not happy today, we do not know what can make him so—*Boston Transcript*.

COMMERCIAL SANITATION IN THE SOUTH

One of the echoes of President Maclaurin's recent trip to Birmingham, where he addressed the newly formed Technology Association of that city, appeared in the *Boston Transcript* soon after his return. It is as follows:

One of the interesting bits of information brought back from the South by President Maclaurin of the Institute of Technology is the close interest that there is in matters of public health on the part of mercantile corporations. The particular objective point of the late flying trip of the President was Birmingham, Ala. Here in connection with business enterprises there has been a civic rejuvenation, and numbers of skilled technologists have been called there by one interest or another to look over and improve public conditions. The movement, by the way, has resulted in the bringing together of a goodly number of graduates of Tech, and it was the occasion of forming an alumni association in the city that was the motif of Doctor Maclaurin's journey.

"It was interesting for me to note at Birmingham, as in the West," said the President, in discussing Southern conditions, "that the business enterprises are coming to rely more and more on technically trained men." It is true that here pig iron has become merely the by-product in view of so many things of recently discovered value in the processes. Much of the work in the country is mining and Doctor Maclaurin was particularly struck by the outcome of the struggle to make every item count, in which waste steam and even the heat of the smoke are utilized, and attention is paid, as a commercial matter, even to the health conditions of the workers. These are miners, not skilled laborers, who, as might be expected, are Negroes. The usual condition of such people is not favorable to sanitation and there has been an effort throughout the South to improve their condition by the study of their ailments, by treatment of the different cases and by education in elementary health matters by attention-compelling posters or pictures. Here the hookworm and other enervating diseases formerly raged. In Birmingham the corporations have realized that the healthy laborer means to them more regular product, of

more even quality and greater in quantity, and they have taken measures to cure and care for their workmen. One of the features is the improvement of the mining camp. In older days any shack was good enough for the miner, but now the old order has been supplanted by cottage camps, little four-room houses with gardens and with a larger social centre for the group. The sanitation of the camp is carefully looked after and baths are provided for the workmen. In the mines, as well, the sanitation has been especially improved.

Hookworm and mines is a long story of different countries. Wales and Westphalia have been found to be infested with the parasite. The conditions in mines, usually warm and damp without sunlight, are peculiarly suitable for the preservation of the worms, while the lack of outhouses or centres for the collection of human wastes has resulted in distribution of infected materials pretty well throughout the workings. Ladders, on which hands and feet alternately touch the rounds help in the distribution of the parasite from the ground to the mouth of the new victim. These are factors in the distribution in Europe. In the South, a warm country, the infesting of the soil with the worm has been common about those places where the people congregate and such loci have made the infesting of the mines the more easy. For one of these corporations it is a recent student under Professor Sedgwick who is in charge, bringing the very latest of modern sanitary science to business operations which even a decade ago had hardly begun to realize that there was any relationship between them.

A LETTER FROM CHINA

The following letter from Walter H. Adams, '03, professor of mechanical engineering at the Imperial Pei-Yang University, Tientsin, China, dated February 26, will be of interest:

It may be interesting for the REVIEW to have some news from China under the present conditions. There are three "Tech men" here in Tientsin. Morrill, '09, is here in the University and Fernandez, '10, is teaching in the Industrial College. While the latter is closed, Fernandez is staying at the University with me.

We have not had any real exciting times here in Tientsin although there have been rumors that trouble was expected. I will not attempt to give an idea of what is going to happen in China as no one knows just what will happen. I will merely give an account of our experiences here.

When the Revolution started last October in Central China no one thought that it would assume such large dimensions. We read about it in our British newspapers and did not pay much attention to it. Finally it hit us in a tender spot—namely our pocketbooks. Silver was in great demand and the price was forced up. Even then we did not anticipate much trouble. Finally during the first week in November the trouble struck Tientsin. Up to that time we had not lost more than twenty students who left because of the Revolution.

On November 6th the American Consul received word that Tientsin was to be taken by the Revolutionaries at once and he commanded us to come into the Settlements at once. (The University is six miles from the Settlements and on the opposite side of the native city.) We sent in the ladies and children—total ten—but decided to stay by the University ourselves. (There are nine Americans on the faculty.) The University authorities said there was no more money to pay us as the Chinese banks were all closed. Every student left who had the money to return home. All this excitement came suddenly and was finished inside of forty-eight hours. Tientsin was not taken by the Revolutionaries and never has been since. At the subsidence of the excitement we found ten to fifteen students left out of 140; one of our professors had cold feet and decided to go home and two

others had decided to send their wives home, preparatory to going themselves. Our Chinese president requested us to continue to go to classes even if we had no students as that would keep the University open in a technical sense of the word. For two months I attended classes, staying ten minutes and signing the roll, although I did not have a student present. During this time we had no excitement at the University. After a month the authorities got a little money and have paid us every cent of our salaries. At the end of a month two more of the faculty left for the United States, leaving six who are still here.

Although we had no excitement at the University things were happening in China and we did not know from day to day whether we would be sent home or not. At the time of the armistice in December our students began to return and work was started in January with a limited number.

The first week of this month work ceased for the Chinese New Year holidays when we always have a vacation for a month. The Provincial Educational Authorities have called upon all the foreign teachers to return to their work at the end of the vacation so we expect that funds have been found for the work.

The above is an account of our experiences in Tientsin. It would not apply at all to those teaching in the government schools in Central China. There, conditions have been very bad and it will be impossible for work to be resumed for some time. The present conditions are that China is now a Republic in name, with a strong man as president. The government is nearly bankrupt, with foreign loans unpaid and indemnity long overdue. The money from taxation and other sources will not meet outlay and other methods of raising money must be found. The simplest method will meet almost universal opposition from the people—namely the method of giving foreign concessions for developing railroads and mines.

If the government is not forced by the European Powers it will probably find some way of overcoming this condition of bankruptcy in the course of two or three years.

There have been all kinds of reports in home papers about conditions here. At no time has a foreigner been in personal danger in Tientsin. In the interior foreigners have been in danger from brigands, but both government and revolutionary forces have done their best to protect foreign lives and property.

NEW MEMBERS OF THE ALUMNI ASSOCIATION

The following former students were elected members of the Alumni Association on the dates indicated:

February 9, 1912: William H. Ames, '78-'79, S. M. A.; Francis H. Bacon, '77; James Turner Ball, '86, S. M. A.; Sturgis G. Bates, '89; George Winslow Brown, '99; Harry Pumphrey Coddington, '95; Frederick Whitman Damon, '96; Howard Reginald Dunbar, '00; Charles Edwards, Jr., '11; Leslie Gordon Glazier, '11; Lonsdale Green, '87; Malcolm Bridges Hall, '10; John Putnam Harding, '85; Frederic A. Hills, '89; Edward W. Hyde, '89; Albert W. Johnston, '73; Theodore Jones, '86; Charles A. Linehan, '11; William Perkins McMullan, '77-'78, S. M. A.; Edward Nichols, '82; Edgar W. Norton, '98; Sidney Austin Parsons, '85; Dwight Heald Perkins, '88; Frederick Porter, '85; Franklin Holmes Reed, '02; Frank H. Rogers, '96; Frank Edgar Sands, '85; Daniel Joseph Smith, '11; William Edward Spalding, '85; John C. Stevens, '09; William C. West, '11; W. B. Willim, '89; A. Tenny White, '85.

March 1, 1912: George W. Adams, '98; John Ormsbee Ames, '97; Anetta F. Armes, '92; David Elmore Bartlett, '11; Donald Clinton Barton, '11; George William Bateman, '03; Bernard Beerman, '05; Harold Sherburne Boardman, '96; Willard Lewis Bowker, '90; T. Morris Brown, '93; James Stewart Cox, '10; William Worcester Cutler, '93; Herman H. Duker, '82; William Baker Faville, '98; Alfred M. Fessenden, '99; Howard A. Gilson, '93; Edward Benjamin Goldenberg, '10; Curtis R. Gray, '03; Kenneth Greenleaf, '11; John M. Grosvenor, Jr., '85; John Luther Harris, '92; H. Norris Harrison, '10; Harry Sterling Houpt, '92; George M. Hooper, '93; J. W. Killinger, '86, S. M. A.; Edward Richard Kimball, Jr., '93; Edmund I. Leeds, '93; Moses Lyman, Jr., '90; Thomas D. McInerney, '03; Harley W. Morrill, '93; Edward Taft Newton, '90; Wilfred Addison Norris, '82; Atwood Collins Page, '10; '10; Edward Page, '93; Harold H. Plummer, '86; A. Senior Prince, '05; Walter P. Richardson, '86, S. M. A.; William Cummings Richardson, '75; Samuel S. Rodman, '10; Herman H. Schmidt, '99; Ralph LeRoy Segar, '05; Harry J. Sheafe, '95; Gilbert Hodsdon Smith, '87; James Henry Andrews

Smith, '98; Stanley Morse Smith, '10; Franklin V. Strickland, '82; Patrick Joseph Sullivan, '05; Albert Loring Swasey, '98; William Albert Swasey, '82; Henry Nettleton Sweet, '81; E. Q. Sylvester, '92; Arthur Wallace Temple, '75; George S. Tiffany, '00; Walter Perkins Welch, '11; George Bertram Welling, '95; Albert Benjamin Werby, '08; Henry Whitmore, '90; Charles A. Wilbur, '70.

March 28, 1912: Daniel P. Abercrombie, Jr., '87; Edward Dean Adams, '69; Henry Bailey Alden, '86; Frank Conger Baldwin, '90; James Kirkwood Brodie, '68; Claude Albermarle Bettington, '07; John Arthur Bigelow, '11; David Demarest Cassidy, Jr., '97; Carl H. Bunker, '91; Stuart M. Buck, '68; G. E. Channing, '75; Osborne Barry Cagle, '97; Pelayo Chinchilla Kirkpatrick, '11; Frederick Lester Corts, '11; Allan Webb Crowell, '02; William Langdon Dearborn, '98; John M. Egan, Jr., '02; Arthur W. Forbes, '73; William H. Fox, '97; Donald Nichols Frazier, '11; Joshua Eugene Freeman, '87; Joseph Nathaniel French, '11; Harold Maurice Hallett, '11; Henry Ford Hoit, '97; William Humphrey, '73; Scott P. Kimball, '11; Edward H. Kruckemeyer, '11; William J. Ladd, '68; Archie J. Orem, '11; Henry J. Perry, '10; William C. Rinearson, '05; George D. Rogers, '02; Schuyler Schieffelin, '90; Edgar V. Seeler, '90; George Albert Sinnicks, '11; Robert R. Stanley, '11; William Channing Stearns, '71; Henry Allard Stiles, '03; William Eben Stone, '68; Edwardo Mauricio Suess, '11; Rodolphus A. Swan, '97; David H. S. Tappan, '87; Channing Turner, '08; Roy Daniel Van Alstine, '11; Joseph Nelson Smith, '71; Fred J. Wilkiemeyer, '05; Merton Grover Woodbury, '87.

ANNUAL REPORT OF THE SECRETARY- TREASURER

Record of the work of the Alumni Association for the year reviewed at the annual meeting in January—A satisfactory Treasurer's report

The membership of the Alumni Association at the end of last year was 5,817, made up of 4,278 graduate members, approximately 3-4; 1,206 elected members, approximately 1-5; 333 life members, approximately 1-20.

Of this membership, dues for the past year were received from about 3,200, or 55 per cent. of the members. This is the largest per cent. on record. In 1907, five years ago, 38 per cent. paid. This year, it has been interesting to note that some members have paid who have not paid dues for years. This increase in the receipt of dues is attributed in part to the repeated notices that are sent to members in arrears and in part, surely, to the notices framed by Mr. Litchfield, who coöperates so earnestly in the work of the Alumni office.

During the past year there have been six meetings of the executive committee and five meetings of the Council, with an average attendance of twenty-eight at the Council meetings.

During the past year the Alumni Council has urged the Institute to publish a new edition of the Register of Former Students. This is in process of publication. A fund committee has been appointed and it is understood that the committee has already begun its work.

A change in the constitution has been made which was made by vote of 726 in favor, against 60 opposed, whereby the term "associate" was abolished, and former students of the Institute as well as of the School of Mechanics Arts, upon election, may become members of the association. Certain changes in the by-laws, to conform to changes in the constitution were made; and another change in by-laws was made in order that the TECHNOLOGY REVIEW may continue to receive the benefit of the second class

mail rates, and by this change the annual subscription to the TECHNOLOGY REVIEW was separated from the annual dues to the association. It may be of interest to the council to learn that some have availed themselves of this privilege, and have paid only for annual dues.

Another change in the by-laws has made the fee for exemption from further payment of dues \$50 instead of \$25. By this change the committee on Permanent Funds also is asked to pay to the secretary-treasurer the member's subscription to the TECHNOLOGY REVIEW, so long as it is the official organ of the association.

Since January, 1911, four new local clubs have representation on the council, as follows: Technology Club of Southern California, Technology Association of New Hampshire, Technology Club of Buffalo, and the Technology Club of Minnesota.

During the past year certain notable events have taken place in which the alumni have been concerned, such as the celebration by the Congress of Technology of the fiftieth anniversary of the granting of the Institute's charter; the granting of the State aid; the selection of the new site; and the presentation to the Corporation by an alumnus of a camp for the Summer School of Surveying and an additional gift of \$10,000 from Charles W. Eaton of '85, toward the summer school camp.

Your executive committee had the sad duty during the year to send the tribute of the Alumni Association to the funerals of Mrs. Rogers and Mrs. Richards.

It was at the annual dinner of 1911 that the Alumni Association recorded its appreciation of the long and faithful work that Major Frank H. Briggs has given to the Advisory Council on Athletics in its presentation to him of a gold stop watch.

During the year the Alumni Association by ballot has elected the officers named by its nominating committee for the year of 1912, as follows:

For president, James W. Rollins, '78; for vice-president, Leonard Metcalf, '92; for secretary-treasurer, Walter Humphreys, '97; for executive committee, Lawrence Allen, '07, George B. Gildden, '93; for representatives at large, Spaulding Bartlett, '90, Ingersoll Bowditch, '00, E. Laurence Hurd, '95, Charles F. Lawton, '77, John L. Shortall, '87.

It has also nominated from the six named by the nominating committee as term members on the Corporation, the following

three: Louis A. Ferguson, '88, Arthur D. Little, '85 and Eben S. Stevens, '68.

By the report presented a year ago there was shown to be a deficit of \$348.67, and this year there is one of \$334.70, which shows that the expenses of the current year have been met completely and a small amount paid on last year's deficit, in spite of the fact that there was a deficit on the Pop Concert of this year due, if you remember, to the very bad weather on the night of June 6. Although the sale of tickets at the door was less than ever, the sales previous to the day were larger than the year before, when \$150 was made instead of lost. This will show a difference of over \$300 which, had it been reversed, would probably have overcome our deficit and made an excess in our income of this year.

The REVIEW this year has been published during the school year at monthly intervals, and yet in spite of this its deficit has been less than last year.

The report of the secretary-treasurer in detail, with the report of the auditors is submitted herewith.

WALTER HUMPHREYS, *Secretary-Treasurer.*

Treasurer's Report

<i>Receipts</i>		<i>Expenses</i>	
Balance on hand Jan. 1, 1911,	\$319.56	Dues refunded,	\$7.00
Dues 1911,	\$3,179.00		
Dues 1912,	361.00		
	3,540.00		
Life Membership (51 gained in 1911),	1,275.00	Payments to Life Mem. Fund,	644.00
Congress of Technology,	4,586.77	Congress of Technology,	4,064.95
		Congress of Technology, refunds,	38.50
Annual Dinner 1911,	1,061.00	Annual Dinner 1911,	1,166.03
Annual Dinner 1912, on account	327.00	Annual Dinner 1911, re-funds,	9.00
Pops	1,185.25	Pops,	1,319.31
		Pops refunds,	18.50
Council dinners,	161.00	Council meetings,	199.83
Received from outside organizations to be turned over,	19.25	Turned over to outside organiz.,	19.25
Interest,	34.17	Collection charges,	15.64
Payment on <i>q/c</i> returned cks.,	11.00	Checks not good,	4.00
Gifts,	42.73	Printing and Stationery,	54.31
Postage redeemed,	24.00	Postage,	850.13
Refund from Somerset from 1911 dinner,	16.00	Supplies,	238.28
		Carfares and messengers,	7.85
		Multigraphing and Neo-styling,	62.22
		Express,	19.96
		Telegrams and telephoning	12.24
		Miscellaneous expenses,	263.83
Outside:		Outside:	
Labor,	\$1,988.31	Printing and Stationery,	\$386.89
		Postage,	680.20
Materials,	882.27		1,067.09
	2,870.58	Services,	4,292.67
		(charged outside with \$2,349.97)	
REVIEW:		REVIEW:	
Subscriptions 1911,\$3,109.40		Ellis, printing 1910,	1,189.88
Subscriptions 1912, 353.70		Rumford, printing 1911,	1,269.78
	3,463.10	Warren & Cook-Vivian:	
		Paper, 1910,	\$424.00
Advertising,	2,215.45	Paper 1911,	955.70
Cash sales,	11.76		1,379.70

Annual Report of the Secretary-Treasurer 245

<i>Receipts</i>		<i>Expenses</i>	
Special subscriptions,	\$110.78	Binding, mailing, etc.:	
Check returned,	1.00	Ellis, 1910,	\$254.14
		Rumford, 1911,	482.48
		Stationery,	24.23
		Postage,	685.68
		Engravings and photos,	188.91
		Services of editor,	937.49
		Miscellaneous,	9.65
		Express, miscellaneous,	8.55
		Express and freight to Concord,	68.97
		Setting up mailing list,	
		Rumford,	85.50
		Telegrams and telephoning,	15.94
		Refunds on subscriptions,	2.25
		Carfares,	2.65
		Supplies,	22.67
		Gifts,	2.00
		Bound volumes,	8.40
		Checks not good,	3.00
			<hr/>
			\$21,016.46
		On hand Jan. 1, 1912,	258.94
			<hr/>
	\$21,275.40		\$21,275.40

ALUMNI ASSOCIATION

<i>Bills Receivable</i>		<i>Bills Payable</i>	
Life Membership,	\$12.00	Life Membership,	\$300.00
Labor and supplies,	655.39	Redeemed postage for classes,	4.44
New Tech Fund for 5,700		Thomas Todd Co.,	25.25
REVIEWS,	912.00		
		A. D. Maclachlan,	1.90
		M. H. Sawyer,	2.50
		Salary for December,	83.33

REVIEW

REVIEW Advertising,	445.93	Rumford Printing Company,	764.27
		S. D. Warren Co.,	256.00
		Frank Wood, printer,	7.75
		Services of editor, December,	83.34

PAYMENTS IN ADVANCE

Dues for 1912,	361.00
REVIEW subscriptions for 1912,	353.70

<i>Bills Receivable</i>		<i>Bills Payable</i>	
		REVIEW Advertising,	\$14.24
		Class of '06,	34.24
On hand December 31, 1911,	\$258.94	Banquet of 1912,	327.00
	<hr/>		<hr/>
	\$2,284.26		\$2,618.96
Deficit,	334.70		
	<hr/>		<hr/>
	\$2,618.96		\$2,618.96

MALDEN, MASS., January 23, 1912.

THE ALUMNI ASSOCIATION,
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
BOSTON, MASS.

Gentlemen:—

We have examined the books of the officers and committees holding funds of the association. We have checked the expenditures of the secretary-treasurer's accounts and have found either vouchers or cancelled checks for each item. We are satisfied that the balance on hand January 1, 1912, was \$258.94.

Respectfully submitted,

(Signed) W. E. PIPER,
GEO. W. SWETT.

REPORT OF WALKER MEMORIAL FUND

JANUARY 1, 1912

Receipts

Subscriptions received by treasurer of Alumni Committee,	\$83,178.34
Interest,	1,201.69
Additional subscriptions received by treasurer of Institute,	11,603.34
Interest on fund after investment to January 1, 1912,	40,280.17
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	\$136,263.54

Expenses

Bills paid by treasurer of Alumni Committee,	\$2,210.77
Bills paid by treasurer of Institute,	1,332.10
	<hr/>
Total bills paid,	\$3,542.87
Less appropriation of Association,	600.00
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Total bills paid from fund,	\$2,942.87
Balance in hands of Alumni Committee,	2,719.26
Balance in hands of treasurer of M. I. T.,	130,601.41
	<hr/>
	\$136,263.54

Respectfully submitted,

(Sgd.) H. W. TYLER.
Chairman of Committee.

MISCELLANEOUS CLIPPINGS

President John D. Runkle of Tech, who served for ten years as the head of that institution, and who was responsible for many of the methods and policies on which the Institute now prides herself, is passed over with such an implied slur on his work, in an article published in *The Herald* of Sunday, January 7, that I am moved to offer a correction. The article I refer to says that Runkle took Rogers's place when the latter was forced to resign in 1870 by ill-health; but that after "years of ill success" Rogers was called back to save the Institute. Such a statement, with what it inevitably implies, is injustice to Runkle, and a departure from truth by which no one is the gainer.

Here are some facts. John D. Runkle was a Harvard man. He took his degree of S.B. and A.M. in 1851, as a member of the first class graduated from the Lawrence Scientific School. He was one of the five professors who formed the first Faculty of the Institute. When President Rogers began to fail in health, in the later 70's, Runkle was made acting president of the Institute; and when President Rogers resigned, in the winter of 1869-70, the Corporation of the Institute, on the recommendation of President Rogers, elected Runkle to fill the vacant place. Runkle served as an elected President of the Institute until about 1878, when his health broke down from the strain of the work, and he went to Europe for a greatly-needed rest. It was then that Rogers returned to the presidency and filled it heroically for a brief time.

As to the importance of President Runkle's work for the Institute, and for manual training, I quote the following from an article by James P. Monroe, in the *New England Magazine* for October, 1902. Mr. Monroe is a member of the Institute Corporation, is one of the most prominent Tech men in Massachusetts, and can speak with authority of Institute history, and the policies of that school. A reading of the whole article inevitably gives the reader the impression that President Runkle directed much the larger part of the constructive work which established the standards and methods of the Institute. Mr. Munroe says of President Runkle:

"During Professor Runkle's presidency were established three of the leading laboratories of the Institute; that of mining engineering and metallurgy, in 1872; that of mechanical engineering in 1874, and the shops, or mechanical laboratories, in 1876. The effectiveness of the mechanical engineering laboratories dates from a later time than President Runkle's administration, but the establishing of the laboratories of mining and metallurgy, and the planning of the shops along present lines, were directly due to him. The former were initiated by a summer school of mining—the first summer session in the Institute's history—President Runkle, with five professors and seventeen students making an extended tour through the mining regions of Missouri, California, Utah, Nevada and Colorado. Returning from this journey well equipped with ideas and with promises of practical assistance, together with Professors Ordway and Richards, he planned the laboratories . . . which have been brought to such a high degree of perfection as to be models for other institutions.

"The shops, or mechanical laboratories, were the outgrowth of a study by President Runkle of the Russian exhibit at the centennial exhibition at Philadelphia. Shopwork instruction, theretofore, had had in sole view the manufacturing aim, the purpose being to perfect the student in the making of some one machine. The Russian system, however, kept before it the pupil rather than the machine, planning its exercises upon educational rather than upon utilitarian lines. President Runkle was quick to see the significance of this change of attitude and immediately upon his return began with great enthusiasm to lay out a course of manual teaching and to build shops which have been the standard for the best subsequent work of this character in America. In order that the benefits of this training might be publicly manifest, a subsidiary school, called the School of Mechanics Arts, was maintained by the Institute for a number of years, until by the widespread adoption of the idea and by the establishing, under the auspices of the city of Boston of a Mechanic Arts High School, the model became no longer necessary. Since then the shops have served solely their proper function, that of mechanical laboratories for the students in engineering.

"Other important events of President Runkle's term of office were the founding of three new courses; those in mining and metallurgy, in physics and in biology; the starting, on a small scale, of laboratories in microscopic analysis and industrial chemistry, both of which were subsequently to be so greatly extended; the building of a gymnasium and the establishing of a lunchroom for the students, and the admission of women to the college."—Robert P. Utter in *Boston Herald*.

The fact that Professor William T. Sedgewick, head of the department of biology and public health at the Massachusetts Institute of Technology, today addresses New Jersey health authorities in the State House, at Trenton, has led to the comment that the gathering may almost be looked upon as a Tech reunion. Among New Jersey health officials who are graduates of Tech are Chester M. Wells, health commissioner of Montclair, and J. Scott McNutt, who holds the same post in Orange. Morris H. Scharff and Frank P. Montgomery of Trenton are also graduates of M. I. T. Professor Sedgewick speaks on "The Modern Health Officer."—*Boston Traveler*.

"I don't feel that it is a fair test of any education to find out how much a man earns when he quits college."

President R. F. Maclaurin of Massachusetts Institute of Technology expressed this opinion when asked yesterday as to the statement of President John Grier Hibben of the Princeton University that a college graduate was worth about \$6 a week until he found himself.

"People made more of President Hibben's statement than should have been," continued Dr. Maclaurin. "What Mr. Hibben was driving at is true that a man must develop himself in his line before he can command himself a large salary. In spite of the fact that he is not worth more than \$6 a week, it cannot be denied that a few years later he will be valuable to society. In our institution we train men for different professions. We don't feel that it is a fair test to any education to find out how much a man earns when he quits school. A graduate must not be carried away with his earning power. Time and again we advise the students to value experience above the salary at the outset. The theory of the ordinary college is

to broaden the view and train the mind. No one claims that Latin and Greek have a value on the commercial market. We give our students an earning power and in that way we are different from other institutions."—*Buffalo Times*.

The most successful season the Institute hockey team has ever had was brought to an end on Friday night last by the elections. We wish to congratulate the team on their choice for captain. Ranney is a conscientious man, a hard worker, and one who is excellently fitted to lead the team through a hard season.

Everything points towards the Institute possessing a very fine team again next year, and such being the case, it is imperative that we should be represented in the Intercollegiate tournament. Technology was only beaten in one college game this season, and on that occasion, though all honor is due to our conquerors, (Yale) it was rather on account of the general conditions than by superior play.

Then another thing, the team receive their T. H. T's if the advisory committee see fit to grant them; they have no actual right to them; they receive them as favors. Cannot this state of affairs be changed? Should a team with the record that our team had during the present season receive only T. H. T's and these in the guise of favors?

We have heard the excuse offered that the granting of the T's to the hockey players would make the number of these in the Institute too many, but that is absurd. There are at present nine letters in a school of fifteen hundred odd men. The granting of ten more would bring the number up to nineteen, a very small percentage compared with most colleges in the country.

We advocate the granting of the T to the hockey team, as they will be only receiving what is their due, and which they have surely earned.—*The Tech*.

Will the day ever come when a man can lift himself by his boot-straps?

The most successful machine, theoretically, now on the market is one which Professor Cross of Tech sometimes exhibits during his lectures on physics. It consists of a wheel edged with figures. The revolving rim carries one 6 and then another from the bottom to the top where each 6 is inverted and becomes a 9. you can argue plausibly that the descending nines, which are greater than the ascending sixes, must keep the wheel moving endlessly by gravitation—but they don't.—*Boston Globe*.

"Coal is already a relic of an age that is gone," said Dr. R. C. Maclaurin, President of the Massachusetts Institute of Technology, in Chicago the other day, in a prophecy of the coming world under the application of the scientific knowledge already worked out in the great technical schools of the country. "It will then be cast into the limbo where the flint and steel have been thrown."

The occasion was the visit of the President to the associations of Tech students in the Middle West, and his interview was accorded to a representative of the *Chicago Evening Post*. "With the recent solutions of the problem of carrying electrical current for hundreds of miles," continued the head of Boston's famous Institute, "and the ability to convert the power even of comparatively slow rivers into electricity, it only awaits the construction of the necessary powerhouses and dams to drive coal out of use as a source of power." Since a dam is being rushed

across the Mississippi River, there is the beginning of a new era for Chicago almost in sight.

Turning to the question of sanitation Doctor Maclaurin gave a mere outline of what the Institute is doing in public health. "A course for the training of administrators for public health departments of cities is one of those now taught at Tech, men who have to deal with problems of sanitation, milk and water supply and other serious problems that confront cities." How successful this department has proved is evidenced every day with occasionally extraordinary proofs, as when at Trenton a week ago ten Tech graduates surrounded and welcomed Professor Sedgwick, who came to Trenton to speak at a meeting of boards of health. Four of these men are at the heads of departments and others in very responsible places.

There has been demand for such properly educated health officers according to the President, and a Tech man is in such a position in the city of Birmingham, Ala., where a score of other Institute men are aiding in the great civic movement there.

The manufacturing industries are looking more and more to the schools of the character of the Institute for the solution of their problems. The demand for chemical engineers is in excess of the supply. "This country," said Doctor Maclaurin, "is just beginning to realize that it is not dependent on Germany for chemicals, and the result is a very large demand for men properly trained."

"The extent of the field in electrical engineering," said the President of the Massachusetts Tech, "is of course almost beyond comprehension. For instance, some of our graduates recently took up the project of putting a dam across the Mississippi to convert its power into electricity. Before they mixed the first batch of concrete they had closed contracts for the disposal of 60,000 horse-power. And undoubtedly you in Chicago will get some of the current from that."

Now that the good old sunny days are coming around again we will soon be sitting during lecture intervals on the steps in front of Rogers. What a happy bunch of memories enshroud those old steps for most of us! The upperclassmen can call to mind many a pleasant hour spent there with bosom friends, and surely life glided by like a song those days. You, who are Freshmen, have a good deal to look forward to, and many a happy moment to be spent where your predecessors have sat for the last fifty years and thought out a whole host of schemes for the betterment of their Alma Mater.

Now the New Technology is so nearly being an accomplished fact (only three or four years more and our school will be in Cambridge), we are wondering what is going to become of our dear old Rogers building.

In the early days, when the Institute consisted of only two buildings, Walker and Rogers, the whole life of the school was centered around them, and with it grew a mighty love for the latter among our older alumni.

Several times lately men have come back to the school, after long years of absence, and their first question has been: "What is going to be done with the Rogers when we move to Cambridge?" The wealth of affection existing among them for the old building has been surprising.

We think it would be a good idea for the Alumni Association to formulate some definite plan for the preservation and holding of this edifice, which has so thoroughly grown into the heart of every Institute man, and become such an indispensable part of our school life.—*The Tech*.

The *Yale Daily News* today publishes an interview with Thomas A. Edison on the subject of the advantages of a college education. Mr. Edison pays a high compliment to the graduates of the Massachusetts Institute of Technology, but takes a fling at Yale and Harvard men. He says:

"I have greater experience with graduates of the Massachusetts Institute of Technology than with those of any other educational institution, having had at one time thirty of them in my employ. And let me say right here that I would employ almost any graduate of that institution who came to me and would not argue as to whether his salary should be \$15, \$20 or \$25 per week at the outset.

"The scientific schools run in connection with the great universities are good, but cannot help being somewhat inclined toward the classical education. A graduate of one of these scientific schools is much better trained for practical business than the graduate of a college, who has specialized in books at the expense of the figures so necessary to the student at the scientific school.

"In my business, if a Yale or a Harvard man should come to me for employment I should probably say there was no place vacant, for I believe that a man without an academic education is as well fitted for my employment as a college graduate and probably will learn the details quicker. Therefore, while I believe in education, I also believe that a technical education is far better than any other kind, not only in my business, but in practically all others with which I am acquainted."—*Boston Globe*.

The gift of \$2,500,000 from an unknown donor to the Massachusetts Institute of Technology gives a new lease of life to one of the foremost technical schools of the world.

This money is not given to enhance the prestige of an institution; it is bestowed to advance the cause of engineering education in America. The material foundation upon which the superstructure of civilization rests is the work of the engineer. No modern building is put up without recourse to advanced mathematical theory. Differential calculus fires the disappearing guns at Sandy Hook and makes the target practice records of our battleships, even though the man behind the gun may not be aware of it. The Missouri is bridged and the Isthmus traversed by the principles set forth in text-books formerly despised by "practical" men, now exalted to places of chief honor.

But the man making ready for the engineering profession today depends on mother wit as well as written precept, and he does with his own hands in the laboratory what he has read about or seen depicted in diagrams and blue prints. His curriculum is a shrewd blending of theory and practice. The first thing he learns is that the two do not quarrel—each indispensably assists the other.

Every now and then some short-sighted self-made man, not unwilling to advertise himself and his "pile," rises up to break forth in heated invective against the whole academic idea. Then he gets in an automobile which owes its construction to Lehigh or Cornell, and visits a bank building which "rose like an exhalation" from lecture room and workshop at Rensselaer Polytechnic or at Stevens, and should he happen to cross a bridge on the way, the design of it might be ascribable to the University of Pennsylvania or Ann Arbor. But he is oblivious to facts that conflict with his favorite hypothesis of the uselessness of "book learning"

"and college training." To such a man the confidence expressed in a gift of \$2,500,000 to a technical school is a rebuke—the sort of rebuke he can understand.—*Philadelphia Ledger*.

The anonymity of "Tech's" latest and largest benefactor has started the greatest guessing contest in this section that has been launched in a long time. When a man lays down two and a half million dollars for a worthy cause and incidentally remarks, "Don't mention it," public curiosity is quite naturally piqued and speculation is rife. It is hard to understand how one man can at once possess so much wealth to spare coupled with so much modesty. Doubtless the facts will come out in due time. It is not easy to keep the source of such a great benefaction permanently concealed. In the meantime let us possess our souls in patience. The applause will be none the less genuine for being postponed.—*Boston Transcript*.

When the name of the anonymous donor of \$2,500,000 to the Massachusetts Institute of Technology becomes known he will rank among America's greatest benefactors. The future of this country, as of all other countries, depends to a large extent on scientific progress. That progress has now been made possible here by the princely gift to Tech. The whole country should rejoice.—*Brockton Times*.

The Massachusetts Institute of Technology is fortunate indeed in the princely gift that has come to it from an anonymous benefactor. The prosperity of this institution, however, will arouse no envy, for it is merited. The high standing of "Tech," not only in Massachusetts, but throughout the United States and elsewhere, is such that all friends of scientific education rejoice in the proposed enlargement of the Institute's equipment and opportunity.

Little remains, apparently, to make this institution the peer of any in the world. It has its ample and convenient site in Cambridge, and funds to cover the land with a splendid group of buildings, combining architectural beauty with educational usefulness. Little provision has been made thus far for the social side of student life, but the Institute expects little difficulty in raising funds for student buildings and dormitories.

The latest gift of \$2,500,000, added to other donations in recent years totalling more than \$5,000,000, is proof of the high esteem in which technical training is held in this country, and the marked trend away from the old classical education to courses of instruction that are immediately applicable in practical life. Utility is superseding selfish culture, and the engineer is reckoned greater than the mere scholar. It is a healthy tendency.

The bestowal of such large sums is also significant in that it is practical recognition of the ability and wisdom of President Richard C. Maclaurin. In the five years during which this big man has been at the head of the Institute, he has made an enviable name for himself among American educators, and has inspired rare confidence not only among scientists, but among practical business men. And for a college president who has been in America for so short a time, President Maclaurin seems able to teach most of his academic brethren a thing or two in the American art of getting the money.—*Boston Traveler*.

Two and a half million dollars to the building fund of the Massachusetts Institute of Technology is a gift in one sum from a living man that it would be difficult to parallel in the history of American education. Coming from a donor who is not a Massachusetts man and whose name is withheld, it is a splendid recognition of the Institute of Technology as one of the great educational forces of the world.—*Eastern Argus*.

Few schools have deserved more of the scientific public than has the Institute of Technology. The recent large gifts which open the way up for expansion and enlargement of the work the Institute is doing, are hailed with joy by all those who appreciate important work well done.—*Gloucester Times*.

Doubtless the donor of Technology's two-million-and-a-half will not be allowed to remain anonymous very long. Such a tremendous gift is a light too big to be hidden under a bushel. But the fact that the giver prefers, if possible, to remain unknown is both refreshing and unusual. All too seldom are our millionaire benefactors given to use of the soft pedal in such circumstances. Mr. Carnegie's name generally goes on the facade. Mr. Rockefeller had done much good for Chicago University—but hardly by stealth. Mr. Morgan made no secret of his gift to the Harvard Medical School. Yet here is some blushing benefactor who actually doesn't want to be compelled to blush to find his action fame. It's a splendid gift—perhaps the most splendid ever made to the cause of education in this particular way at a single time. It ought to mean that the extra half million which President Maclaurin says is necessary will be forthcoming with all speed. And when it comes, nothing should stand in the way of erecting in deathless permanence a proper scientific university on the northerly shore of the Charles River Basin. It is such gifts as this that make the swollen fortunes of the country rather more tolerable than they would otherwise be.—*Lowell Courier Citizen*.

The unrestricted gift of \$2,500,000 to the Massachusetts Institute of Technology is a piece of good fortune that deserves to arouse the enthusiasm of all friends of advanced technical education. It assures beyond all question the future growth and development of the new Technology and means that the attainments of the institution which have attracted favorable attention all over the world will be continued in ample measure. It places Technology in the "Don't Worry" class.

Technology is really in its infancy, compared with Harvard, Yale and other New England universities, but it has made an honored name for itself in the short period of a generation. It is about to occupy a new site and start a new era and the only cause of anxiety, lack of funds to carry out an ambitious program, has been removed by this generous anonymous donor. Whoever he is, his gift is liberal and the reasons for making it, as stated by President Maclaurin, show that the benefactor is a far-sighted man.

Not a little of the recent successful development of the Institute of Technology is due to the energy, tact and skill of President Maclaurin, who within a short time has caused the institution to make a decided advance. There can be no doubt that he stands ready to meet the vast details of administrative duties incident to the building of the new Technology just over the Charles.—*Boston Globe*.

President Maclaurin's announcement of a gift of \$2,500,000 to the Institute of Technology is as pleasing news of the educational world as has been heard lately. No school in this country better deserves generous gifts; and few have fared so ill in receiving them. There is an institution which ranks so well as to occupy almost an unique position. It is serious, efficient, an immense factor in the finest material development of the country. It turns out efficient men, clear headed and earnest. Its graduates are by the fact of their graduation picked and exceptional men. The need of money has handicapped the institution. This large gift is admirably placed. May it draw others.—*Boston Record*.

The anonymous contribution of two and a half millions to the Massachusetts Institute of Technology comes at an opportune time, for the school is about to be removed from the south to the north shore of the Charles. The new site is one of large artistic possibilities, lying as it does close to the river bank and practically included within the improvement plans of the famous Boston park system. The future Technology buildings will be conspicuous from the Boston side of the stream, and the approach to Cambridge will be more imposing than heretofore by reason of them. Fortunately the tract is to be laid out with painstaking attention to the esthetic considerations involved, and the result ought to be one in which every "Tech" alumnus may have just pride. That Cambridge is to gain from the transfer is of course obvious, and yet Boston need not greatly regret it, because the college city is easily within the radius of its influence, and what benefits the smaller community is of immediate advantage to the larger.—*Providence Journal*.

The name of the benefactor of "Tech" cannot be long concealed. It may at present be known only to the giver and receiver of the great sum of \$2,500,000, but it is sure to leak out. Whoever gave it is entitled to the gratitude not only of the institution, but of the whole commonwealth. And a modest tablet bearing his name would not be out of place somewhere in the buildings to be erected on the Charles.—*Lowell Courier Citizen*.

In the enthusiasm for the man who has given millions to Technology, the deed of the man who has given all the cement needed for the construction should not be forgotten. Put into money values, his gift is far from being a small one.—*Gloucester Times*.

Not at all bad in Doctor Maclaurin yesterday at the Tech boys' convocation when at the close of the address by Detective William J. Burns he said: "I have been on pins and needles for fear Mr. Burns would tell you the name of the donor," and thereupon he closed the meeting so as to give the detective no further chance.—*Boston Transcript*, March 21.

If he who gives quickly gives twice, how many times does he give who offers an institution a princely gift practically without restrictions, or so conditioned that it will be used for what the institution needs most? College officers have been exasperated time and again by more or less unintelligent giving. A fund is

left, for instance, for the benefit of boys who have had the foresight to choose A. B. fathers, or to be born in certain towns or cities; or it is willed for the purchase of books, although the need is not for books, but for dormitories, or for general expenses or for higher salaries for the teaching staff. The magnificent offer of \$2,500,000 to the Massachusetts Institute of Technology is practically unconditional, in that it will be used for that equipment which is the greatest need of Technology just now.

It is good, too, that the money did not come as the result of a begging expedition. The work of Technology has spoken for itself better than even its inspiring President could speak. Not only among Technology graduates, but among successful men who have first-hand knowledge of the Institute and of the young men it sends out, there is a feeling of admiration which is not supposed to be common among the hard-headed men of business and of science as applied to business. The praises of Thomas A. Edison, extravagant as they seem, are really no more enthusiastic than those of thousands of other men in all parts of the world.

The gift of \$2,500,000 is indeed exceptional, but the institution which gets it is also exceptional. And what shall be said of the man who wishes no eulogies for his generosity and whose name is known to hardly anybody but President Maclaurin? Here is a combination of generosity and modesty which is seldom found—the generosity notable because the donor is not a graduate of Technology and the modesty all the more notable when contrasted with the loud giving of many modern benefactors.—*Boston Herald*.

BOOK REVIEWS

NAVAL ARCHITECTURE. By Cecil H. Peabody, '77, Professor of Naval Architecture and Marine Engineering, Massachusetts Institute of Technology. New York, John Wiley & Sons. London, Chapman & Hall, Ltd. Cloth; 6 x 9¼ in.; pp. 641; 218 text illustrations. \$7.50, net (31s. net).

The first edition of this book appeared in 1904 and was very favorably reviewed at some length in this supplement on April 14, 1904.

In this revised edition the changes that have been made are all in chapters X, XI and XII, dealing, respectively, with the resistance of ships, the propulsion of ships, and power for ships. There are many omissions and additions from p. 395 to p. 452, and there are sixteen new tables inserted at the end, which deal mainly with propellers.

There is practically no change in size, there being 610 pages of text in the new edition as against 608 pages in the first edition. The chapters which are not changed deal with calculations, stability and allied subjects, launching, waves, rolling, steering and maneuvering, and weight and strength.

The portions of the book which have been rewritten cover questions of resistance and propulsion somewhat more simply and certainly than before, mainly by taking advantage of the results of numerous experimental researches which have been published since 1904. In the chapter upon resistance of ships, the principal new matter deals with stream lines around ships, resistance in shallow water and resistance due to appendages. Two new diagrams showing lines of flow around two types of vessels are given, but the description of this flow does not agree with the diagrams.

The author proposes a standard form of propeller blade such that the contour viewed from aft is mainly that of an ellipse tangent to the hub. To obtain the necessary length of blade at the hub, however, the contour in this vicinity is obtained by drawing lines from the shaft axis tangent to the ellipse. This proposed standard blade is not put forward as possessing particular merit of efficiency from its shape, but simply as a convenient type to use, which it undoubtedly is.

Very complete tables of coefficients and constants are given for use in connection with propeller design. These are based mainly upon published results of experiments at the United States Model Basin, but the author points out that these results are in close agreement with those published by R. E. Froude from experiments in England. The new matter in the chapter on the power of ships is mainly of somewhat minor importance.

This book covers fully the very excellent course in naval architecture conducted by Professor Peabody. As a general text-book for the student it is believed to be distinctly superior to any other book on its subject in the English language.—W. D. TAYLOR* in *Engineering News*.

*Naval Constructor, U. S. N., Navy Yard, Washington, D. C.

PRINCIPLES OF ELECTRICAL ENGINEERING. By Harold Pender, Ph.D., Professor of Theoretical and Applied Electricity, Massachusetts Institute of Technology, Mem. A. T. E. E. First edition. 8 vo., xviii & 438 pages, 136 figures in the text. McGraw-Hill Book Company, New York. Cloth, \$4.00 net.

It is doubtful whether the majority of graduates of technical colleges appreciate at the outset of their careers the need or value of coördinated use of the different branches of knowledge underlying their chosen profession. In fact, one might go even further and assert that educational methods do not always give a lasting emphasis to such a use of the subjects taught, and it is therefore no wonder that, when they are plunged into practical engineering, many men find themselves for the first time really thinking.

In research work does the imagination have especially to play upon all branches of knowledge which may afford an explanation of the phenomena under observation. An instance of this kind may be illustrated by the well-known case of transmission poles splintered by lightning discharges. It is no uncommon thing to find a wood sliver several feet in length, but weighing only a few ounces, projected seventy-five to ninety feet away from the pole, the body of the pole remaining generally intact. No one has as yet determined how great are the forces involved at the time of such a disturbance, but it would appear from many occurrences of this sort that the failure is due not so much to electric repulsion as to the steam produced by the passage of a certain amount of electric current at the time of discharge through the conducting vein of moisture adjacent to the splinter. The consequent enormous pressure simply relieves itself with the results noted.

The point of the preceding on which emphasis should be laid is the fact that, while an electrical phenomenon is the origin of the disturbance, it may have no direct connection of itself with the results and it, therefore, obliges the investigator to consider other branches of natural philosophy in explanation. In this respect the introduction to Professor Pender's "Principles of Electrical Engineering" hits the nail absolutely on the head when he says: "In the author's opinion, a clear conception of the principles of physics and the ability to apply these principles in coördinating the experimental facts of physics, both qualitatively and quantitatively, is absolutely essential before one can get a clear understanding of the more complicated reactions that take place in electric machinery and transmission circuits."

It is in the full conviction of this indisputable necessity that Professor Pender begins with a thorough review of "Fundamental Ideas and Units." It is a common experience that students who are immediately plunged into theoretical matters of engineering lose sight of the subject and become discouraged because of the lack of a proper connection between the more general preparatory subjects and the new technical one. Professor Pender bridges this gap by duly emphasizing such principles and problems of physics and mechanics as are of particular importance to the study of electrical engineering. The thoroughness of this chapter becomes evident from the fact that Professor Pender goes back to the very "Articles of Scientific Faith" in presenting the "Fundamental Ideas and Units." It is still a question, however, whether, in the actual use of such a text-book, either time will be allowed to review the allied principles of physics carefully, or whether it will be assumed that some other department of instruction has covered the matter properly, so that the opportunity to make certain that the students have a complete conception of the matter will be lost.

Another element of Professor Pender's book which should have universal acceptance is the inclusion of the calculus and other higher mathematics in the development of the theory. Essentially this is perhaps not especially unique, but anyone familiar with the want of facility in such matters of the graduates of our American technical schools, will agree that the utilization of such conveniences is not as highly developed as it should be, and this lack in general at present is doubtless responsible for the awe with which electrical engineers read certain extremely valuable papers, like Steinmetz's, and overlook in their astonishment and bewilderment which this vehicle of expression *per se* creates for itself, the author's wonderful imagination which uses such mathematics merely as a language. The simple fact that the mediocre or the poorly equipped mathematician finds it impossible to realize the full value of Professor Pender's book does not create the necessity of criticising it as being generally and entirely deficient in the mathematical treatment, for, with only a few minor exceptions, the mathematics is reasonably intelligible to the one properly prepared and as thoroughly covered as the circumstances will allow. In order to increase the circle of effective students of the book, the more uncommon calculus should not be eliminated, but should be taught as one of the important preparations for the study of electrical engineering. It is hoped, therefore, that the use of Professor Pender's book will tend to accelerate the approach of the day, when every practical American engineer completely equipped for his profession will be able to use calculus as easily as arithmetic or a slide rule.

The problems included in his book offer an admirable exercise in familiarizing one's self with the real scope of the principles set forth. The value of repetition in practice of well-known principles is nowhere more emphasized than in just this field, and it would seem that the students handling such a set of problems must perforce have borne in upon them an understanding of great value in the future growth of their studies.

It is clear from the preceding that the author sets out with an admirable appreciation of the present needs of students, and his work can therefore be judged best from this standpoint, for many of the expositions are merely old and well-known ones set forth in a new working arrangement for study and reference. As a text-book, moreover, the value of this particular work could best be judged from two angles: first, by its effectiveness in the hands of the professional teachers and, secondly, by the results of the students' response,—assuming, of course, that both sides of this equation are equally in earnest.

The student's confidence in any text-book depends to a certain extent on the form in which the subjects are presented and on the degree of freedom from all marks of haste and incompleteness. It is, therefore, unfortunate that in a few instances some of the necessary explanations of steps taken in mathematical derivations are omitted. Furthermore, the subject is frequently presented in rather a bulky form; this becomes evident, for example, on comparing the contents of one or two sections of the chapter on "Symbolic Method" with Doctor Steinmetz's presentation of the same subject.—In other respects, however, Professor Pender's interpretation of the symbolic notation is admirable.—A number of typographical errors still remain to be eliminated. Professor Pender could, undoubtedly, make his cross references more readily useful by adding the chapter numbers and article numbers at the head of each page.

On the other hand, the student will appreciate the "Summary of Important Definitions and Principles" at the end of each chapter, for as long as colleges exist student nature will short-cut short-cuts and pick out for convenient use against a time of stress such principal formulæ as he thinks will carry him through examinations. For such minds the problem work and repeated use of fundamental relationships in required study, if properly stimulated, should make him involuntarily know the subject. From this standpoint, the matter is well arranged and has been given an attractive set-up. The cross references within and without the book are excellent. It also shows the benefit of Professor Pender's experience in hand-book development, by reason of the excellent arrangement of all essential facts to give them emphasis and simplicity.

The excellent sequence of the development is noteworthy throughout. The beginning of chapter VI is quite remarkable in this respect on account of the clear manner in which Professor Pender works up to the general equations of the simple electric circuit through a discussion of the different classes of energy associated with any electric circuit. He has succeeded in concisely showing that two fundamental equations are the basis for the solution of practically all problems regarding the transmission of power by variable or alternating currents. It is to be appreciated that a thorough physical interpretation of the various mathematical expressions is given; this makes this chapter physically and practically tangible, which would otherwise be merely a mathematical puzzle to the student. It seems strange however, that Professor Pender does not logically conclude this subject by covering a concrete presentation of a general problem on long-distance transmission with distributed capacity and inductance which would include all the necessary formulæ and therefore apply to all practical cases.

The chapter on "Symbolic Method" is of special interest and value on account of the distinction made between "*j*" as the imaginary unit in complex expressions involving only constants, and "*j*" as the multiplier equivalent to the operation $\frac{1}{w} \frac{d}{dt}$ in connection with rotating vectors (w =periodicity of wave, and t =time).

There are many practical illustrations which might at first appear superfluous but are really valuable as emphasizing on the student's mind the coördinated value of physics, electricity, etc. Some of the well known subjects, like right-hand rule, are well described. The sequence of the chapters, beginning with "Fundamental Ideas and Units," passing through "Magnetism," "Continuous Electric Currents," "Electro Magnetism," "Electrostatics," "Variable Currents," to "Alternating Currents," is developed most effectively.

O. R. S. & N. J. N.

THE THEORY OF STRUCTURES By Charles M. Spofford, '93, Hayward Professor of Civil Engineering at the Massachusetts Institute of Technology. New York, McGraw-Hill Book Company. 1911. 411 pages, 6 x 9. 315 illustrations. Cloth, \$4.00 net, postpaid.

For many years no American technical school has offered a stronger or more thorough course in structures than that given in the civil engineering department of the Institute. Technology's position as a leader in this subject was established through the notable work of Professor George F. Swain, an engineer and teacher

of rare attainments. Tech men who have taken the course in structures under Professor Swain appreciate its value, not alone for the thorough grounding in the theory of the subject, but as well for the excellent general training it afforded in teaching men to think for themselves.

"The Theory of Structures" by Professor Charles M. Spofford is the first text-book to be published following the general lines of the Institute course. The author was a student under Professor Swain in the class of 1893, and took a post-graduate course under his direction the following year. After devoting several years to engineering practice in structural lines and to teaching, Professor Spofford succeeded Professor Swain as Hayward professor of civil engineering upon the latter's resignation from the Institute in 1909. In his preface Professor Spofford states that he "wishes particularly to acknowledge his indebtedness to Professor George F. Swain for the logical and inspiring instruction received from him as a student."

While following in a general way the methods of instruction developed by Professor Swain which contributed so largely to the strength of the Institute's course in civil engineering, Professor Spofford has produced a text-book which is noteworthy for its original methods of presentation and its simple and direct style. It well fulfills the author's purpose to "present in a thorough and logical manner the fundamental theories upon which the design of engineering structures is based and to illustrate their application by numerous examples." Very wisely, the author has not attempted to treat of the design of complete structures, but he has given careful and ample consideration to "the design of the more important elements of which all structures are composed." The book is devoted almost entirely to common or statically determined structures, it being the author's stated purpose to treat indeterminate structures in a later volume, but in addition to the determinate structures considered, commonly used approximate methods for some of the more ordinary types of indeterminate structures, such as continuous-truss drawbridges, are given, and the treatise covers practically the whole field of work ordinarily encountered by the practicing structural engineer.

Chapter one, "Outer and Inner Forces," deals with weights of various types of structures, live loads, impact, wind pressure, snow load and permissible unit stresses. The diagrams of weights of railroad bridges and the data of weights of various materials used in bridge and building construction will be found especially valuable for the reference library of the practicing engineer. The information here given is in accord with best modern practice and the author is to be commended for his wisdom in seeing to it that his students have a clear knowledge of practical working conditions before proceeding to the consideration of the theoretical problems.

In chapter two, the fundamental laws of statics, including reactions, shears and moments, are treated for structures subjected to fixed loads, and the principles are impressed upon the student by the solution of problems which are typical of those found in engineering practice. A thorough mastery of these general laws of statics is absolutely essential to the structural engineer. In this connection the student is brought to a clear understanding of the subject by the use of influence lines which show graphically the effect at a given point in a structure of a load unit placed anywhere on the structure. The influence diagram often presents to the student at a glance information which otherwise would be impressed upon his mind only by a slow and lengthy process of analytical demonstration. The book is notable for the freedom with which the influence line is used in deriving and

illustrating analytical methods, and it is of undoubted help to the student in gaining a clearer and more rapid insight into the theory of structures.

In chapters three, four and five are considered the calculation of shears and moments in simple beams due to moving concentrated loads, and the design of beams and plate girders. In the latter chapter exact and common methods of plate girder design are explained and the degrees of approximation of common methods are shown for typical cases, this being a feature not found in other text-books. Rivets and riveted joints are considered at some length and the subject of web stiffeners is treated in a simple and logical manner. The subject of plate girder design is presented with unusual thoroughness and clearness.

In chapters six to ten, inclusive, are given the common methods of solution of stresses in the various types of framed structures ordinarily met in structural engineering practice. Chapter six treats of the calculation of stresses in simple trusses by both analytical and graphical methods. The common types of roof and bridge trusses are considered including bridge trusses with non-parallel chords and trusses subjected to both uniform and concentrated live loads. Chapter seven is devoted to the solution of stresses in bridge trusses with secondary web systems, principally the Baltimore and Pettit trusses, and this chapter is noteworthy for the thorough and original treatment of the subject. In chapter eight are given the common or approximate methods of calculating stresses in trusses with multiple web systems, in portal and lateral bracing, transverse bents in mill buildings and viaduct towers. Chapter nine takes up the subject of cantilever bridges, describes their characteristics and advantages and explains the methods used to obtain the reactions at the points of support, the calculation of stresses in cantilevers being merely the application of methods already described for trusses and plate girders when the reactions are once known. Chapter ten is devoted to the three-hinged arch; different types of masonry and metal arches, with and without hinges being described for the information of the student, but the methods of stress calculation being given only for the statically-determinate three-hinged arch, the solution of indeterminate arches being reserved for treatment in the author's forthcoming volume on advanced structures.

Chapters eleven and twelve treat of the detailed design, under practical working conditions, of columns and trusses. In chapter eleven consideration is given to the general subject of columns, column formulæ, types of columns in common use, the actual proportioning of compression members including such details as lattice bars, batten plates and rivet pitch, eccentric forces, and the effect of combined flexure and thrust. Columns of wood and cast iron are considered, as well as steel. In this chapter also is taken up the design of iron and steel tension members. In chapter twelve pin and riveted truss joints are treated at length. An engineer becomes a good structural designer only after considerable experience in active practice; but as a foundation for his work he must be familiar with certain general principles underlying all designs, and these principles are well covered in the above two chapters and in the chapter on the design of plate girders. In dealing with general principles rather than with the complete design of some particular structure, the author economizes the student's time and at the same time brings more clearly before the student's mind points upon which particular emphasis needs to be laid.

Less attention is paid to graphical statics, which is the subject matter of chapter thirteen, than is commonly the case in text-books of this sort. Practicing engineers generally will agree with the author's contention that, as a rule, analytical methods are more satisfactory than graphical methods, both in accuracy and in speed. The author believes, however, that the structural engineer should "be thoroughly familiar with the principles of graphical statics so that he may be prepared to apply them, particularly in checking analytical computations," and in this chapter the subject is treated with sufficient thoroughness to accomplish this result.

Deflection and camber are considered in chapter fourteen. The trigonometrical and rotation methods of determining truss deflections are explained briefly as neither is commonly used. These methods are not given in other text-books. The determination of truss deflections by the analytical method of work and by the graphical method or Williot diagram is fully covered and illustrated by well-chosen examples from typical bridges. The Mohr method of correcting the Williot diagram, the deflection of beams and girders and the common practice regarding camber are also given.

In the last chapter on continuous and partially continuous girders and swing bridge reactions, enough of the subject is presented to give the student an understanding of the general problems to be met in connection with swing bridges. The tables of reactions for continuous and partially continuous girders used for the design of swing bridges are a valuable addition to an engineer's reference library.

"The Theory of Structures" is an excellent treatise, written with unusual clearness and with a simplicity and absence of intricate mathematical demonstrations which is noteworthy in comparison with other text-books on the subject. It is evident that the book is the work of one who, while first of all a teacher, is at the same time an engineer of wide experience in active practice, a combination too often lacking in writers of engineering text-books. The subject is presented in a manner to be most readily comprehended by the student thus conserving much of his time and energy; nevertheless, the book does not lack in thoroughness, diligent work on the part of the student is required to master the subject, and once mastered the student has gained an excellent and adequate foundation for his work as a structural engineer. At the same time a course in the theory of structures, based on a text-book such as this, is the best sort of general training for the civil engineer, whether or not he has occasion later to specialize in structural work, inasmuch as it develops his powers of reasoning, teaches him to think clearly, and trains him to solve new problems.

The book is noteworthy for the originality with which the subject is treated as well as for its agreement with the latest and best ideas of engineering practice. Throughout the work the principles given are illustrated by numerous problems which are carefully chosen and are representative of the problems arising in the everyday, practical work of the structural engineer. Where theory has to be limited or modified by practical considerations the latter are pointed out and explained. Where approximate methods are employed, the degree and character of the approximation are shown. The whole aim of the book appears to be to give the student a thorough, practical and comprehensive grasp of the fundamental principles underlying modern practice in structural engineering.

As a text-book Spofford's "Structures" stands in the foremost rank, but it will be found equally valuable as a reference work in the library of the practicing engineer.

FREDERIC H. FAY.

THE TWENTIETH ANNIVERSARY BOOK OF THE CLASS OF 1891, published by the class, 1911. Pp. 50. Illustrated.

The '91 class book which was received early in the year contains an entertaining account of the celebration of the twentieth anniversary of the class, at Osterville, June 2, 3, 4 and 5 last year and is a delightful reminiscence of the happy days the members of the class spent together amid pleasant surroundings. The book is profusely illustrated with photographs and drawings and contains a directory of the class both alphabetical and geographical. Some extracts from the book with a few illustrations are printed in the class of 1891 news in this issue.

COMMERCIAL PAPER, by Roger W. Babson, '98, and Ralph May; published by Babson's Statistical Organization 1911; pp. 253.

If there is one question on which every banker wishes to be informed it is that of the safe buying of commercial paper. A new book on that subject, "Commercial Paper," by Roger W. Babson and Ralph May, published at Wellesley Hills, Mass., by the Babson Statistical Organization, endeavors to define the usefulness of commercial paper and to give an analysis of its strength and its defects. We believe that this is the first book of the kind that shows the true foundation for commercial paper, the methods of distinguishing it from paper issued as such but not on a proper foundation, and the means for selecting the best paper of this class, together with methods for keeping borrowers from becoming unduly extended. This little volume, handsomely bound in red, is not only of importance to bankers, but also as well to manufacturers and to investors. The commercial paper market has grown to such extraordinary limits in this country that a volume of this kind, showing commercial paper in its true light, is among the safest of investments.—*The Western Banker*.

CLASS BOOK BY THE CLASS OF 1881, published by the Class, 1911, paper covers. Illustrated.

This pamphlet contains biographies of the members of the class with an account of the class meeting celebrating the thirtieth anniversary of the organization. The book is illustrated with a picture of the class taken when the men were seniors.

NEWS FROM THE CLASSES

1868.

PROF. ROBERT H. RICHARDS, *Sec.*, Mass. Inst. of Tech., Boston
Mass.

The secretary has just received a letter from Clarendon Nickerson, '98, enclosing the news of the death of Bryant P. Tilden on February 15, taken from the *Daily Alert* of Jamestown, S. D. The article is as follows:

"B. P. Tilden passed away quietly this morning. The pioneer civil engineer, builder and settler, the deep student, beloved father and friend, died at 5.45 at the City Hospital, where he was taken Wednesday evening suffering from a relapse after his long illness. The end did not come unexpectedly, but this will in no way lessen the sense of the great loss to his family and hundreds of friends in this county and state. Death was caused by complications of troubles, dilation of the heart and chronic nephritis with dropsy. On Christmas Day, 1909, he was first taken seriously ill, suffering a stroke of paralysis that affected both arms and legs, although he later almost recovered from this stroke, but other ailments then attacked him. His condition became so serious last April that on the 19th of the month he was taken to the City Hospital where he remained in his room until the 3d of February, when, although, it was the beginning of the end, his condition apparently was so improved as to allow his return home. The fire that partially destroyed the City Hospital, October 28, seemed to act as a stimulant. He remained at home with his family until Wednesday, and even planned to renew his work, but a severe relapse occurred. The complication of troubles could not be checked. Death came this morning quietly, as the sufferer had wished. The nurses with all of whom he had become a warm friend, were with him at 5.30 a. m., passing in and out of the room until six o'clock and during this time, without external evidence, the heart ceased its beating and dissolution occurred. Bryant Parrott Tilden was born at the Fort, Saulte St. Marie, Mich., June 6, 1846. He spent his boyhood days in Boston, graduating from Boston School of Technology a member of the charter class in which he studied mining and civil engineering. Immediately upon graduation he entered a career in which his profession took him to many parts of the United States, during the pioneer days when a constructing engineer was directing the varied and strenuous work of developing this new country. The young civil engineer in 1868 was with

the Union Pacific Railway at Salt Lake City and Laramie, Wyo. After marrying his first wife, Miss Gertrude Pope—they passed through or around Chicago during its big fire on their wedding tour—he moved to Sheboygan, Wis., and in 1871 was in charge as constructing engineer of the railroad between that city and Green Bay. From there he was called to western Montana as mining engineer before the railroad days at Phillipsburg. Later he returned to Boston and engaged as engineer at the Sullivan Silver Mine, where the shaft was sunk beneath the sea. He also taught in a well-known technical school of Pennsylvania. B. P. Tilden came to Jamestown in 1881 where he was called as engineer in charge of constructing the Jamestown and Northern branch of the Northern Pacific Railroad. He built as far as Carrington in 1882, to Sykeston and New Rockford in '83; Minnewaukan in '85 and completed the branch to Leeds in '89. He was also in charge of the Northern Pacific line from Winnipeg Junction north and built the first bridge across the Red River at Grand Forks. He located the present Northern Pacific round house at Jamestown and many other buildings and roads were laid out under his directions. In 1883 he married the second time, his bride being Miss Fannie Parker, who survives him, living at Jamestown with her children. During the greater part of his residence in this city he has acted as county surveyor. For ten years he was in the surveyor-general's office at Bismarck as chief draftsman, part of the time under Andrew Blewett, when the latter was surveyor-general. The water works at Fort Lincoln, Bismarck, were laid out by him. In 1902 and 1903 Mr. Tilden was called to take charge of the construction of a railroad from Valdosta, S. Ga., to Jacksonville, Fla., finishing the work in 1904 when he was called for special railroad work near York, Canada, since which time until his illness he has been county surveyor. B. P. Tilden was a man with many warm friends. He followed an honorable career in every branch of his life. He was an omnivorous reader, and considered by many the most brilliant thinker and scholarly man of Jamestown, though naturally of an unassuming and retiring demeanor. It is said that he was probably the best or most scientific engineer the Northern Pacific Company had in this country. His loss is regretted by all. The late B. P. Tilden is survived by his widow, three daughters born to the first marriage, Mrs. Byron Millard and Mrs. F. J. Millard of San José, Cal., and Miss Belle Tilden of Minneapolis; three daughters and one son born to the second marriage, all surviving, Misses Bessie and Emily of Jamestown, Frances of Minneapolis and Bryant Tilden, Jr., of Bismarck. His one brother, Samuel Tilden, also resides at Jamestown."—Bryant Tilden was on the engineer corps of the Great Northern Railway when it was being constructed. He was asked to inspect the location of the road through the Prickly

Pear cañon. He did so and reported that the location was too low for the whole distance of five miles, and that if a cloud-burst occurred in the up-stream area the whole five miles would be washed out. His superior replied that the road would have to be built as located.

Some years later the writer went over the road and was told that a cloud-burst and flood had washed away the five miles of road and that the road-bed had to be relocated and rebuilt. He saw the rail-ends sticking up in the bed of the stream at many points.

"ELISHA CLARK WARE, who died in 1909, was a special student at the Institute during the years 1866-67 from Aurora, Illinois. Mr. Ware was born, August 20, 1846, in Granville, Illinois. From June 9, 1863, he was for three years in the banking house of John Leavitt & Losch at Waterloo, Iowa. From this employment he decided at the age of twenty to continue his studies, and came to the Institute in the fall of 1866. Returning to his home in Aurora in the fall of 1867, he was a partner in the firm of Grey Sherwood & Co., wholesale teas, coffee and spices, until wiped out by the great Chicago fire of 1871. Mr. Ware then embarked in the real estate and loan business in which he continued for the rest of his life. Mr. Ware was at one time president of the Great Western Tin Plate Co., and later with several others developed the West Los Angeles Water Company at Los Angeles, Cal. At the time of his death, July 28, 1909, he was president of the Chicago Roller Skate Co., a business now carried on by his sons. He was for many years an elder of the Hyde Park Presbyterian Church, and a teacher in the Sunday School. Mr. Ware married, September 6, 1870, Miss Minnie A. Hanna, who with three sons, Ralph, Walter and Robert Rea, survive him."

1870.

CHARLES R. CROSS, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

S. D. Mason, 1870, writes from Fort Worden, Wash., "We think a great deal of the REVIEW, perhaps prizing its pages more than those who are more nearly, and oftener on the ground. It was particularly pleasant to find in one of the later numbers, the picture of our beloved and revered Mrs. Stinson. How well I remember her, and I really believe she would greet me by name now if I should unexpectedly appear before her. I think her a remarkable woman."

1875.

E. A. W. HAMMATT, *Sec.*, Hyde Park, Mass.

The annual meeting and dinner of the class was held at Young's Hotel at 6.30 p. m., March 8, 1912. There were some surprises

in the matter of attendance, as some who had signified the intention to be present failed to appear, and others came who had not communicated with the secretary for many years. At the business meeting, the usual reports were presented and accepted. Upon motion duly seconded, it was voted in spite of their vehement protests that the present officers be continued in office during life. Letters were read from a number of men who could not attend.—Shockley is spending the winter in Switzerland with his family.—Frank Dabney reports that "Parson" Phipps has become a farmer.—"Bill" Edes hopes to see some of the boys in San Francisco in 1915.—Goodale gave some account of his trip to Japan last fall.—Bakewell has recently sailed for Europe.—The attendance was as follows: Beal, H. Dabney, Dorr, Hammatt, Hibbard, W. Lewis, Mixter, Nickerson, Plimpton, Stoddard, Warren.

1876.

JOHN R. FREEMAN, Sec., Grosvenor Building, Providence, R. I.

"As a public-spirited citizen Frederick Greeley, who was laid to rest yesterday, should be remembered gratefully by Chicagoans. Though his home was in a suburb his heart was in the city's progress, and he gave freely of his time and ability to planning for Chicago's welfare. As chairman for fourteen years of the Small Parks Commission, as a member of the Commercial Club's committee for creating the Chicago plan, as an officer of the Children's Home and Aid Society and as the first president of the Playgrounds Association of America he had many altruistic interests which he conscientiously and ably served. His life was useful and his ideals high and noble."—The above notice in the editorial columns of the *Chicago Record-Herald* of January 24, 1912, refers to one of the best beloved of the members of the class, one whose keen and kindly wit has long been a pleasant memory. In 1873, Mr. Greeley was one of the first to elect the newly established course in general physics. After withdrawing from the Institute he joined with his father, Mr. Samuel S. Greeley, in carrying on an old-established surveying business in Chicago, their office having no superior in the esteem of Cooke County conveyancers. After some interruptions to business, caused by illness, he sought a change of scene in construction engineering in Idaho, taking charge, for a season, of a large irrigation project, and had sought rest and health in several trips abroad. During many years his overflowing kindness of heart and humorous views of the incidents of the day helped to lighten the load of all who journeyed with him. He was for some years secretary of the Union League Club of Chicago. Samuel Greeley, of the class of 1906 graduate in sanitary engineering, was his son.

1877.

RICHARD A. HALE, *Sec.*, Lawrence, Mass.

"The thirty-fifth anniversary and dinner of the class of '77, M. I. T., was held at the University Club, Boston, Wednesday, at 7 p. m. Professor Richards, '68, was the invited guest of the occasion; there were eighteen members of the class present of a membership of seventy-seven, who belong to the association. President Joseph P. Gray presided and remarks were made by Professor Richards who spoke of the early days of the Institute and various reminiscences that occurred at that time. E. G. Cowdery, vice-president People's Gas Light Company of Chicago, spoke of his experiences in gas engineering and the great development and expansion that was occurring in that line in the West. His experience in Milwaukee and St. Louis showed the tremendous growth that occurred. George W. Kittredge, chief engineer of the New York Central Railroad, spoke on the development of the terminal in New York and the electrification of the road in the vicinity together with some interesting facts relating to the expansion of the feed wires. R. A. Hale gave a brief statement of the conditions of affairs in Lawrence in connection with the strike. Letters were read from some of the absent members among whom was Herbert Jaques who has recently been elected to the office of president of the Country Club at Brookline. As this is the original Country Club and has had but four presidents during its long term of existence it is quite an honor to have charge of its affairs. Letters of regret from other members were received who were unable to be present. Those who attended were: John Alden, chemist Pacific Mills, Lawrence; W. B. Bradford, draughtsman at United States Navy Yard, Charlestown; F. J. Brown of the firm of Brown and Gifford, ice dealers, Winchester; Charles A. Clarke, president and treasurer of Hill-Clarke & Co., machinery dealers, Boston; Edward G. Cowdery, vice-president People's Gas Light & Coke Co., Chicago, Ill.; Edward W. Davis, publisher, Boston; Warren E. Fairbanks, merchant, Boston; A. S. Glover, secretary Hersey Mfg. Co., Boston; Joseph P. Gray, president Boston Manufacturers' Mutual Fire Insurance Company, Boston; Richard A. Hale, principal assistant engineer of Essex Company, Lawrence; Walter Jenney, vice-president Jenney Mfg. Co., Boston, Mass.; George W. Kittredge, chief engineer New York Central & Hudson River Railroad, New York; C. F. Lawton, superintendent board of public works, New Bedford, Mass.; George A. Nelson, assistant city engineer, Lowell, Mass.; Arthur L. Plimpton, chief engineer Boston Elevated Railway Company; Harry C. Southworth, in business, West Stoughton, Mass.; J. F. Stimpson, assistant resident manager, Silver Springs branch of United States Finishing Company; B. T. Williston, manager of the Hancock Inspirator Company, Boston, Mass.

The following officers of the class were elected for the ensuing year: president, Joseph P. Gray; vice-president, John Alden; secretary and treasurer, Richard A. Hale. The remainder of the evening was spent in general intercourse and conversation."

1881.

FRANK E. CAME, *Sec.*, Metcalfe Apartments, Westmount, Quebec, P. Q.

FRANK H. BRIGGS, *Asst. Sec.*, 22 High Street, Boston, Mass.

At the Technology Club dinner, January 13, Boston was represented by Frank Rollins, "Hans" Allen and Frank Briggs. Nat Shed came on from Buffalo and Dave Bissell from Pittsburgh. Ira Abbott, treasurer of the Technology Club of New York, was, of course, present. The class of '81 had a separate table, and had the honor of Mr. Frank H. Rand, bursar of the Institute, being with them. The class turned out the largest number of any single class at the dinner; and Abbott won several cigars thereby. —Howard Barnes has been North and was in Boston the latter part of March.

1882.

WALTER BRADLEE SNOW, *Sec.*, 170 Summer Street, Boston, Mass.

The thirtieth anniversary dinner of the class was held at the Boston City Club on Thursday evening, February 8. The attendance has been exceeded only twice in the history of the class—at its first annual dinner and at the twenty-fifth anniversary. The following were present: Darrow, Duker, French, Gooding, Hall, Herrick, Jenkins, Low, Munroe, Ross, H. F., Snelling, Snow, W. B., Walker, A. W., and Warren. Much entertainment was furnished by the mutual efforts of Duker to identify other members of the class and of others to identify him, for it is thirty-three years since they last met. Much to the pleasure of all, Snelling was present; the second time in thirty years. The only grandfather discovered in the class was Duker.—Great enthusiasm was shown in planning for a celebration in June which as now outlined will include a reunion dinner on Monday evening, June 3, an automobile outing with the ladies on Tuesday, June 4, an informal dinner in the early evening at which Doctor MacLaurin and the professors and instructors of the days of '82 will be the guests, and final adjournment to the Pop Concert.—Miss Clara Preston Ames will, as has been her custom during the past few years conduct a party on a four months' trip to Europe for a spring and summer tour. The party, which will be limited to six persons will sail from Boston April 27 on the steamship *Cano-pic*, and will follow a most interesting itinerary.—The present address of Joseph H. Walker is 209 Palm Avenue, Hollywood,

Cal.—Richard Dexter Walker, of Malden, son of "A. W.," has been elected one of the assistant business managers of *The Harvard Crimson*.

EDWARD D. HOOKER

The secretary has but recently learned of the death on October 27, 1911, of Dr. Edward D. Hooker, of Arlington, Mass., who was associated with the class in its freshman year.

LYMAN L. GERRY

Lyman Luville Gerry died at the Boston City Hospital July 15, 1911, where he had undergone a surgical operation. The following is quoted from a local paper:

"Mr. Gerry was a member of one of Stoneham's oldest families and had a large acquaintance among men high in official life. He was born in Oxford, Me., August 4, 1857, the son of Lyman and Harriet Bonney Gerry. Under Professor Burbank of Woburn, he prepared for the Massachusetts Institute of Technology. As constructing engineer for Percy M. Blake & Co., of Hyde Park, Mass., he built many pretentious water works. He was city civil engineer for five years at Dover, N. H., superintendent of water works at North Attleboro, superintendent of streets in Stoneham, and for fourteen years resident engineer for the Massachusetts Highway Commission. At the time of his death he was the treasurer of the First Unitarian parish, which he also served as trustee and in other valuable capacities. Mr. Gerry held high positions in many secret and fraternal organizations. At Dover, N. H., he was past exalted ruler of the Benevolent and Protective Order of Elks, and past noble grand of the Wecohammet Lodge of Odd Fellows; chief patriarch of the Dover encampment; captain of the Cantons, quartermaster of the Second Regiment of Patriarchs Militant of New Hampshire. He was a member of the New England Water Works Association, the Boston Society of Civil Engineers and the American Numismatic Association."

1884.

HARRY W. TYLER, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

The annual dinner was held at the University Club on Wednesday evening, February 21. It is a serious matter for a class in these variously "progressive" days to live up to the reputation and responsibility of having a member whose generosity has made the New Technology possible—without some slight impairment of habitual modesty. While the class enjoyed the abundant hospitality of du Pont's steam yacht *Tech* in 1909, he himself was kept away by ill-health, and has been rarely seen by any of us

for many years. This year he was able to attend the class dinner, and the opportunity to meet him attracted the largest attendance for twenty-five years, except at the anniversary dinner in 1909. Those present included Messrs. Appleton, Bridgman, Dearborn, Doane, Gill, Hammett (from Troy), Lull, Mellen, Otis, Puffer, Rotch, Stuart, Tyler, Ward and Whitney. French was detained at the last moment by the Hoosac Tunnel wreck which he had to assist in clearing out. Interesting letters were received from absent members of the class, including General Weston, Colonel Lyle, Professor Bardwell (of the Case School) and others. Their general tenor is summed up in Sedgwick's telegram: "I regret my inability to be with you in Boston February 21; please say to du Pont that he deserves more honors than any man who has ever attended Tech."—Puffer has been engaged by the Massachusetts Railroad Commission as an electrical expert for its report concerning the Hoosac Tunnel disaster.

1885.

I. W. LITCHFIELD, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

At the Alumni dinner, January 4, the class of '85 responded in good form, only three classes having a larger attendance. Those present were Eaton, Ames, Morss, Plaisted, Frazer, Steele, Hildreth, Merrill, Jim Kimball, Talbot and Litchfield.—At the dinner of the Technology Club of New York, January 13, there were more '85 men than responded from any other class excepting the class of '98. Those present were Sid Williams, Alex McKim, J. H. S. Bates, E. C. Lufkin, Ed. Mumford, Charles Richards, Ed. Dewson, Frank Page, Walter Harrington and Litchfield. It was a genuine '85 reunion. Harrington who has not turned up for a long time looked as fresh and young as he did back in the last century and Williams and Lufkin are in the same class. It is hoped that they will be able to meet with the class in June at Frank Page's rendezvous on the South Shore.—The representative of the class of '85 on the Alumni Fund Committee is Tenny White who concludes that he has something of a job on hand to keep up '85's reputation in view of the pernicious activities of some of the other classes which we are accustomed to overtop. At any rate the members will undoubtedly hear from him very soon.—At the dinner of the Northwestern Association in Chicago, January 27, Bob Richardson came in from Kalamazoo, Mich., and Harry Barr who happened to be in the vicinity of Chicago was also present. These representatives of the class of '85 with the secretary, were very properly accorded seats of honor at the head table where they added luster to an unusually brilliant assemblage.—John Grosvenor, of Swampscott and Boston, a recalcitrant member of the class, has expressed proper contrition for his backslidings and promised to appear at the next meeting of the class. He is

one of the Essex County commissioners and he has had it so arranged that the meetings of this body generally came on the days that '85 had a celebration. Grosvenor has been properly forgiven by a committee of the class appointed for the purpose and the next meeting will be a reception given in his honor on the occasion of the annual class dinner which occurs on the evening of April 6, at the University Club.—Recognizing the pioneer work that Alex McKim has done for Technology interests in New York, the Technology Club of New York gave him a luncheon, March 16, as an expression of gratitude and affection with which he is held by that body. His portrait, painted by Louis Mark, the great Austrian painter, was formally presented and received by the club on that occasion. McKim has lately returned from a trip abroad.

1887.

EDWARD G. THOMAS, *Sec.*, Kewanee, Ill.

At the annual meeting of the class which was held at Young's Hotel, February 25, there was a smaller attendance than for many years, but Adams, F. A. Thomas, Bryant, Hildreth, Hathaway, Stewart, Brainerd, Lane and Cameron were on hand and organized with Bryant in the chair, Cameron acting-treasurer and Coburn secretary. After acting on the various routine matters, officers as follows were chosen for the ensuing year: president, Souther; vice-presidents Crosby and Brainerd. Bryant reported a substantial increase in the general income account of the class fund and stated that there had been expended the usual amount for the assistance of Vose.—Arrangements for the twenty-fifth reunion in June next were fully discussed and the matter placed in the hands of a committee consisting of Sprague, chairman; Cameron, Crosby, Very and Coburn. Various plans were suggested and it is sure that our previous summer gatherings will be "beaten to a frazzle" by the coming one.—Sturges has associated himself with the firm of Noyes & Jackson, brokers at 124 Adams Street, Chicago.—Farwell, after one term in the California Legislature, is listening to the siren calls of friends who wish him to run again. He says he won the last election by *not* making a campaign speech! Fancy Lyman keeping still! He was chairman of the committee on oil industries and oil mining interests, thereby proving the all-around education which the Institute gives its architects.—Gelett Burgess and his publishers were sued for \$100,000 by a San Francisco man who alleged that one of the characters portrayed in Burgess' story "The Heart Line" was a libelous representation of himself. The case when brought to trial, however, was immediately thrown out.—Sprague has recently made many trips to the South for examination and reports on coal lands and mines going into West Virginia and Kentucky.

1888.

WILLIAM G. SNOW, *Sec.*, 24 Milk Street, Boston, Mass.

William S. Besler, vice-president and general manager of the Central Railroad of New Jersey, gave a lecture at Harvard University January 19, on 'Some Phases of Emergency Railroad Works.'—Work will begin in the spring on a power house for the Johnstown & Altoona Railway, G. U. G. Holman, general manager and H. T. Pierce, engineer.—E. P. Quigley wrote recently that the Birmingham, Ala., branch of the Southeastern Alumni of the M. I. T. were to hold an important meeting at which prominent Tech men would be present including Doctor Maclaurin.—The Santa Barbara (Cal.) *Morning Press* of January 30, contained the following item:

"Mr. Stephen Child, the Boston landscape architect, whose winter offices are in Santa Barbara, has recently received word of his promotion to the grade of Fellow in the American Society of Landscape Architects. This is the highest grade in the society and a much coveted honor for those practicing this new profession. Mr. Child's work in this vicinity is growing rapidly and he has recently received commissions of importance in San Jose, Oakland and in the vicinity of Los Angeles." Child reports that he is very busy in California and that a number of interesting and important problems in landscape architecture have been recently committed to him to work out.

Addresses recently sent the secretary are:—Harold A. Pitman, 53 State Street, Boston.—T. F. Laist, 618 Monadnock Building, Chicago.—Franklin Henshaw, Scarsdale, N. Y.—John S. Ray, 809 Wilson Avenue, Chicago, Ill.—Harry C. Moore, Wellesley Hills, Mass.—Edwin R. Pearson, Pittsfield, Mass.—Addison I. Nickerson, care Stone & Webster, Keokuk, Iowa.—Frank M. James, 126 Monument Street, Haverhill, Mass.—James W. Loveland, Hackensack, N. J.—Arthur H. Conner, care Improved Paper Machinery Company, Nashua, N. H.—William H. Gerrish, 15 Ashburton Place, Boston.

1889.

WALTER H. KILHAM, *Sec.*, 9 Park Street, Boston, Mass.

Those who were members of the architectural department during the '89 sophomore year will be interested to know that Crane, while in Portland, Ore. recently, fell in with Heinrich C. Dittrich who has been practicing there for the last twenty years.—Pike has been appointed chief of the Electrical Bureau of the city of Philadelphia. The *Public Ledger* of that city on March 1 contains a large portrait of Pike together with an interesting sketch of his

life. It is interesting to note that Pike in his academy days frequently carried the transit and other materials for the present Rear-Admiral Robert W. Peary. The city of Philadelphia is fortunate to secure the services of so successful an engineer as Pike.—Fiske has opened a handsome exhibit of tapestry brick at the Arena Building, New York City.—Mott was married in January to Miss Oli Coughlin.—Orrok is one of the managers of the American Society of Mechanical Engineers and has just become a member of the Society of Naval Architects and Marine Engineers. He is giving a course of fifteen lectures on "Power Plant Design" at the Polytechnic Institute of Brooklyn.—Pietsch was married in Baltimore on November 7 last to Miss Gertrude Carroll Zell and will reside in Earl Court in that city.

1890.

GEORGE L. GILMORE, *Sec.*, Lexington, Mass.

Charles Hayden left the latter part of February for a two weeks' trip to Palm Beach, Fla.—William George Plumer is at Girard, Erie Co., Pa.—Mr. H. G. Ripley's address is 101 Tremont Street, Boston.—Moses Lyman, Jr., is now with the Springfield Foundry Company, Springfield, Mass.—Professor Elton D. Walker's address is 121 North Atherton Street, State College Pa.—F. W. Swanton is at 1511 Irving Street, N. W., Washington, D. C.—Frank W. Atwood is at 216 Milk Street, acting as sales agent for anilines, dyestuffs, essential oils and chemical specialties.—Knight C. Richmond, the well-known millwright, took part in the discussion at the dinner of the Southern New England Textile Club held at Providence December 16 on the paper read by Mr. Sidney P. Paine of the General Electric Company on "Applied Electricity" with regard to the use of motor power in mills.—In December Governor Foss appointed Lieutenant John B. Blood of Lynn to be chief of the Naval Bureau, M. V. M., with the rank of captain, to succeed Commodore Parker retired. Captain Blood has proved to be a very valuable officer to the brigade as chief of the Lynn division and in the capacity of navigating officer of the U. S. S. *Newport*, U. S. S. *Gloucester* and U. S. S. *Chicago*. Captain Blood is an expert navigator. Captain Blood's Naval career dates from September, 1892, when he enlisted in Company E of the Naval Brigade at Lynn, which he served until 1894, when he was discharged owing to his leaving the state limits. During his enlistment he was warranted as coxswain and gunner's mate. In September, 1904, he was elected lieutenant (junior grade) of Co. E., and on January 4, 1906, he was chosen to command that company. Captain Blood won his laurels during the summer of 1908, when as navigator of the U. S. S. *Newport* he successfully navigated that ship, with Governor Guild and members of his

staff from Boston to Jamestown and return, making stops at many coast ports, and all without a mishap. Captain Blood won many pleasing compliments from Governor Guild and members of his staff. During 1909 he served as instructor in navigation to the officers of the 1st Battalion, and in 1906 was largely instrumental in organizing the Massachusetts Military Revolver League. He is an expert shot with the rifle and revolver, and in 1906 won second prize in the State revolver match. Captain Blood was born in Newburyport July 21, 1870, and received his early education in the schools of that city. Later he entered the Massachusetts Institute of Technology and was graduated in 1890 as an electrical engineer. He comes of old Puritan stock and is a member of the Sons of the American Revolution, Society of Colonial Wars, United States Revolver Association and a member of several military and naval societies.—Guy C. Emerson was one of the speakers at the annual dinner of the Boston Electric Vehicle Club held at the City Club in December.—In November Charles Hayden with some of the other directors of the Utah, Ray and Chino Copper Companies visited the properties in Utah. In December Hayden was reelected as one of the directors of the Shannon Copper Company.—C. H. Alden, the architect, is at the Cray Building, Fifth Avenue and Union Street, Seattle, Wash.—Harry Whitmore who was a special one year with the class, is one of the firm of Meredith & Grew, Boston, Mass.—W. Z. Ripley has been appointed by the Governor of Massachusetts as a member of the executive committee of the State Council of Civic Federation. Ripley is on the part of the committee to represent the public, the other divisions representing employers, labor and automobile manufacturers. The first meeting was held at the Parker House January 17.—With the retirement of Mr. Albert B. Moore from the firm of Woodman & Moore, Andrew W. Woodman becomes sole owner of the business with an office at 122 South Michigan Boulevard, Chicago. The business is engineering and construction.—Professor Sarah E. Smith is at Mt. Holyoke College, South Hadley, Mass.—Edgar V. Seeler is in the Real Estate Trust Building, Philadelphia, Pa.—A. H. Rogers' home address is 87 Buckminster Road, Brookline, Mass.—Mrs. Louis J. Paris (née Addie E. Edwards) resides at 324 South Union Street, Burlington, Vt. George C. Osborne is at Lardo, B. C., Canada.—The address of H. L. Noyes is 622 Pine Ave., Niagara Falls, N. Y.—Fred C. Moody is with the Missouri & Kansas Telephone Co., Kansas City, Mo.—Wisner Martin is at 141 Milk St., Boston, Mass.—The Rev. Franklin Knight is now settled at Holyoke, Mass.—John M. Howells is of the firm of Howells & Stokes, 100 William St., New York, N. Y.—Frederick A. W. Harris is at 158 Bowen St., Providence, R. I.—S. D. Flood is at 209 So. State St., Chicago.—The address of William H. Fenn is 1000 Broome St., Wilmington, Del.—Elwood A. Emery is at 5006 Jefferson Ave., Chicago, Ill.

—Frederick H. Dodge is president of the Ohio Electric Car Co. Fred was in Boston in March during the Auto Show and looked as natural as ever except somewhat stouter.—A. J. Delano is at 50 Oliver St., So. Boston, Mass.—Miss Elizabeth E. Bickford is at 1508 El Centro St., So. Pasadena, Cal.—Spaulding Bartlett is with the Am. Felt Co. whose Boston office is at 244 Summer St.—Frank C. Baldwin is at 1509 16th St., Washington, D. C.

1891.

HOWARD C. FORBES, *Sec.*, 88 Broad Street, Boston, Mass.

Arthur Alley is abroad and writes from Rome, February 11:

Received your note when I returned from my Nile trip to Cairo. . . . I arrived here Thursday last and am doing museums and galleries to the Pope's taste, and today visited the palace and stables of the king. There are so many interesting things to write about that I am not going to attempt any. Intend to visit Florence, Pisa, Milan, and Venice; then on to Paris, London, Dublin, and hope to arrive in good old Boston about April 1. Regards to all the boys.

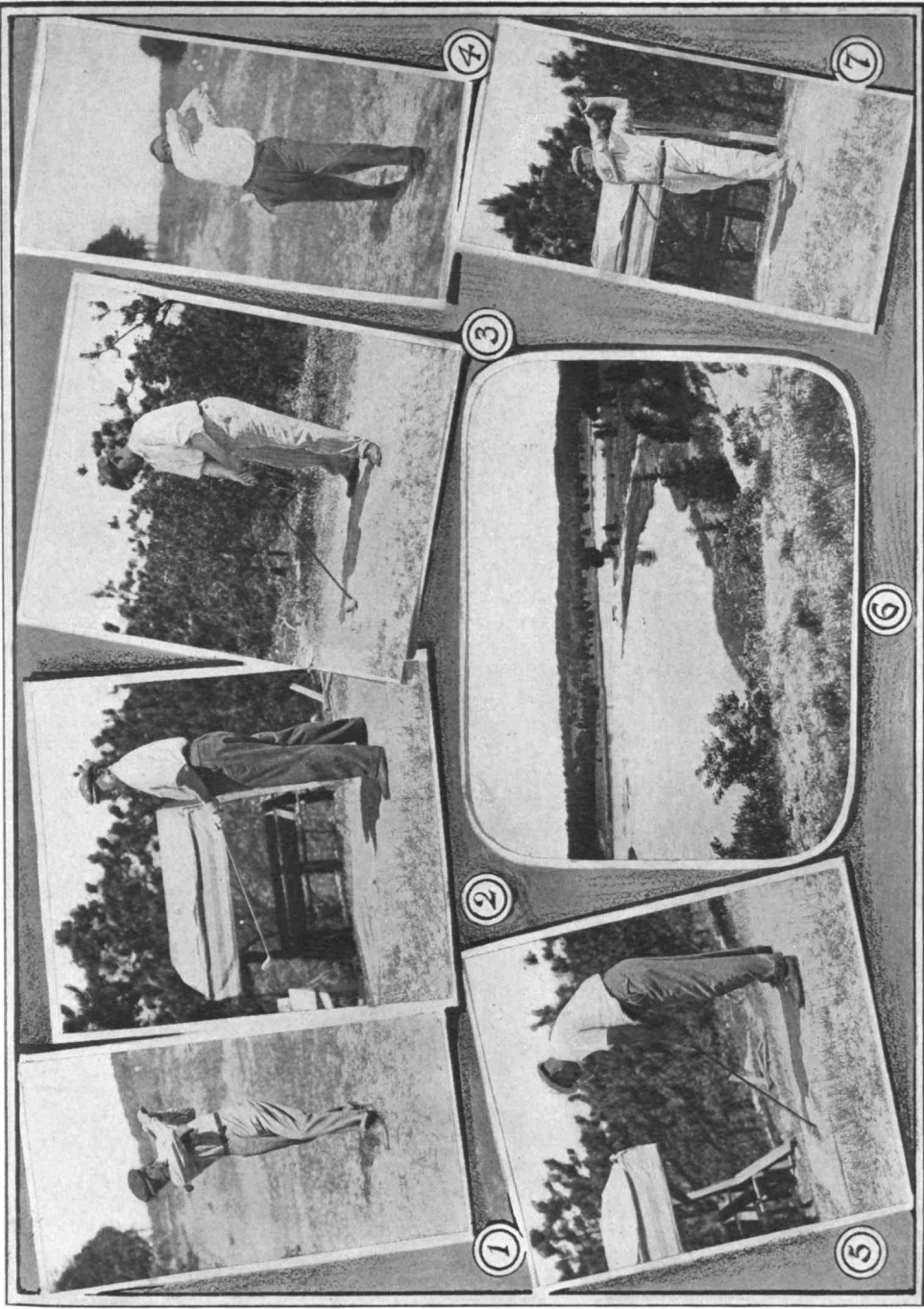
—Jimmie Swan writes:

Not long after the reunion I was sent out to Russia, and spent a considerable part of the summer in St. Petersburg, finally arriving home on the 23d of September. Since then I have been sticking pretty closely to Camden and have been very busy. The yard is full of work, and we have enough on hand to keep us busy for the next year. I am already looking forward to the next reunion, and if it is as successful as the last there will certainly be no kick coming.

—For the book of the reunion we are indebted chiefly to "Garry, our wit." No one who has not done it realizes the amount of time and labor it takes to get a book together, matching up the reading matter with the cuts, and keeping it within a limited cost. Charlie has not said whether this came harder than some of the puns, but anyway, he did a good job. Also Birdie did great work in arranging the cuts, and getting their size down so that we could pay for them, and in designing the settings. At the request of Mr. Litchfield portions of the book are given below as of interest to other classes:—

THE TWENTIETH REUNION

So it happened that there assembled at Hotel Thorndike a motley crowd, shall we say, accepting the "freedom of the city" from our kind host Damon. This was on Friday, not the 13th, but the 2d of June, and a perfect day, as were the succeeding ones. Members of this famous (to them) class began to arrive as early as 9 o'clock, and from then until noon the mutual meetings were interesting to behold. A private parlor was reserved for our accommodation, where took place much interchange of past histories.



TWENTIETH ANNIVERSARY OF THE CLASS OF 1891

VIEW FROM SEPUT GOLF LINKS

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|----------------------|----------------------------------|
| 1. WILDER DRIVING | 5. BLANCHARD ADDRESSING THE BALL |
| 2. MANSFIELD LEADING | 7. GARRISON FINISHING A DRIVE |
| | 3. PALMER'S HONOR |
| | 4. FISKE HITTING A TWISTER |



TWENTIETH ANNIVERSARY OF THE CLASS OF 1891
The Gallery before and after the Grand Play

And there was need, for some of our members had never appeared at a class function since their work at the Institute ceased. The luggage was first sent away over the road in an auto truck, and arrived early at our haven of pleasure. It was planned to travel by automobile, and a sufficient number were found among the members. Poor Wason, who was suffering from an injury, being unable to go, kindly offered his car and chauffeur. As there was ample room in the other autos, it was unnecessary to accept. Just before the start Jere Campbell's car developed "spring halt," or some such trouble, and was towed to a nearby stable. Bradlee had some fine road maps made, showing the best route: and no detail was left undone, due to his efficient management. It is needless to state that a complete equipment was secured for baseball, tennis, golf and bathing. Osterville lies some 85 miles southeast of Boston, on Nantucket Sound, and Wianno is the summer resort, a mile away on the ocean front. The pine woods grow to the water's edge, and it is here on a slight bluff that the hotel, the Cotocheset House, is situated. Several dormitories lie across the road, the largest being "Wayside," having twenty-four rooms. Here the majority of the men were lodged, while a smaller cottage near by was also filled, and the "overflow" were accommodated in the hotel itself. Secretary Forbes was the first to arrive; the '91 flag was flying from the top of the hotel. The place was practically deserted, as the summer guests hardly begin to arrive before the middle of June. All the baggage had been deposited on the Wayside piazza, and Forbes had the rooms assigned by the time the cars arrived. Conant had his portable wireless outfit rigged at the top of the hotel in a twinkling and gave demonstrations to his interested classmates. Before long an improvised bar was in readiness in a corner of Wayside parlor (for the first time in its history be it said in passing), where modest cocktails, were dispensed at the nominal price of the asking. Steve in his shirt sleeves and apron made an imposing picture. When Bowen's hands were tired Vaillant acted as bas-relief. At 7 o'clock we assembled in the hotel dining-room, and after much cheering started with a good appetite upon the feast set before us. For three days we were furnished with most satisfying meals. The place was crowded with Joys, not a Gloom was in sight. The sports were arranged as follows:—The morning sessions were divided into different groups, while the afternoons were to be devoted to baseball by the class as a whole. A catboat under command of Captain Joseph Adams waited at the pier. Seven brave spirits trusted their souls upon the heaving billows. When all are aboard the auxiliary power is started, as the day is calm; and the party, after a short trip, drop anchor at the Beacon, on Collier's Ledge, some two miles off shore. They have abundant luck, taking in a large keg—of fish—during their morning's stay. When lunch time arrives, they reluctantly leave the fishing grounds,

for the fish were biting in the most lively fashion. What stories were told at the table, that evening as to the fish they caught, or hauled up to the boat's edge, or saw, space does not permit to mention, nor a New England conscience to believe.—On the two beautiful June mornings of the third and the fourth, trips were arranged in a roomy power boat some 28 feet long, kindly loaned by W. L. Garrison, Jr., Harvard '97, in charge of Thomas C. Fisher, M. I. T. '12. Commodore Young's own account of the first day's trip is given as follows: We left the pier at 10 a. m. with two dozen bottles of beer on ice. Arrived at Cotuit at 11.30, after a smooth and uneventful trip, with keel always on the sand. (There are no rocks.) Swan explained how to figure prices of war ships, and told how he took a contract from the Chinese government, and also about his trip across Siberia. We called at the Succunnessett lightship and gave the '91 cheer in passing; they returned the salute with three bells. After the beer gave out, we headed for shore and all landed safely.—On Saturday morning, the tennis tournament was started; the golfing contingent was taken to the Sepuit Golf Club; a fishing party left the pier for the Beacon to try their luck for scupp and other sea monsters; while the power boat took the least strenuous of the party on a voyage to the Succunnessett lightship. Surviving these dangers, the boys returned in time for lunch, after which all were transferred to the ball field at West Bay Inn. The field had just been put in suitable condition for the exciting exhibitions which were about to take place. Two short games were played with the soft ball (vulgarly called fat men's baseball!) in order to limber up the boys for the real game of the next day. Sunday (why say it so loud:) was divided in a similar manner as the previous day; the tennis tournament continuing; the golfers traversing the links with the same enthusiasm; the fishermen eager as ever for the sport, the exceptional success of the day before whetting their appetites; and the powerboat ride towards the lighthouse and around the fishermen. Sunday afternoon the whole party was taken by auto to the ball field, for the great event of the outing. The teams are quite evenly matched. At the end of the first inning, the score is 4 to 8; Team A evens things up in the second, 10 to 10; then canters ahead 13 to 10 in the third; the fourth inning is over 15 to 10. It is agreed to play but five innings, as darkness might fall upon the contestants if they essayed to play the entire nine innings. And now comes the great play of the game! With the score 15 to 10 against them, Team B makes two runs; one hand is out; now the bases are full. Vaillant playing left field on Team A saunters to within a few feet of third base in order to jolly Knowles, the runner, and distract his attention. The batter hits a Texas Leaguer, a line drive right into Vaillant's mit which he has raised in self-protection. He is so surprised that he holds it and then throwing to third, some six feet away ends the game



TWENTIETH ANNIVERSARY OF THE CLASS OF 1891
The Ball Teams



TWENTIETH ANNIVERSARY OF THE CLASS OF 1891
The Tennis Players and Gallery

with a double play in a blaze of glory. Bathing was indulged in by some before breakfast and by others after the ball games. Then came the dinners each evening from 7 to 9, sumptuous and hilarious occasions these! The events of the day were discussed at large, much skepticism was expressed at the stories of the fishermen who had caught so many fish, so———long, and all that. Whitney was again in form and saw that the conversation did not flag; his "bon mots" were received with enthusiasm and he sparkled and scintillated during each festive repast. He had his usual speed and could not be slowed down until the midnight hour was well past. What remained of Sunday evening was devoted to an auction sale in Wayside parlor of all the baseball and tennis paraphernalia. These were so highly prized that they brought fancy figures. (Moral: When in doubt, have a rummage sale.)—Monday, the final day, alas! Some early birds hastened to take a farewell dip in the briny before breakfast. The tennis and golf were finished and then the final preparations for departure were made. A few had left us the previous afternoon, and one or two cars were obliged to leave before lunch. By 2 o'clock the last car had disappeared from the beach and the place became a memory. The ride home under cloudy skies was delightful, and we arrived at the point from which we had started, the Hotel Thorndike, regretting that our outing could not have been indefinitely extended.

1892.

W. SPENCER HUTCHINSON, *Sec.*, 1235 Morton Street, Mattapan, Mass.

W. A. JOHNSTON, *Asst. Sec.*, Mass. Inst. of Tech., Boston, Mass.

A card announcing the partnership of George Hunt Ingraham and Prescott Andrews Hopkins both graduates in the department of architecture, class of 1892, has been received by the secretary. Undoubtedly, Ingraham and Hopkins would be glad to hear from any member of the class desiring work done in their line.—Metcalf left Boston about the first of March for a three or four weeks' trip through the West.—C. F. Wallace, is planning to spend the summer months abroad, taking a well earned rest.—It is hoped that a sufficient number of the members of the class will see to it that the twentieth anniversary is celebrated in a manner worthy of the class of '92. Notices will be sent out giving full details.—The following clippings in regard to Waterman, Wooffindale and Sherman will prove interesting. From *Survey*, date February 24, 1912, we have the following in regard to Waterman:

"Richard Waterman, for the past two years secretary of the City Club of Philadelphia, recently became financial secretary for the Philadelphia Children's Hospital. The directors of the Children's

Hospital are planning a campaign to raise a million dollars to erect and endow new hospital buildings on a site that has been purchased at 18th and Fitzwater Streets. It is proposed to make the institution the best equipped and finest children's hospital in this country. Mr. Waterman will perfect the plans for the new buildings and then direct the financial campaign. As a preliminary step a study will be made of the need for new hospital facilities for children in Philadelphia. Mr. Waterman brings to this new work a trained mind and rich experience as a social engineer. On graduating from the Massachusetts Institute of Technology, class of 1892 he continued his training at the University of Chicago and abroad. For six years, while principal of a large public school in Chicago, he was active in civic and social movements in that city. From there he went to Boston to become Mr. Filene's private secretary, assisting him in many of his philanthropic achievements—notably the Boston City Club, of which Mr. Waterman was assistant secretary and one of the directors. As secretary of the Philadelphia City Club, Mr. Waterman has been active in making the club one of the most progressive and useful civic organizations in the city."

From the *Springfield Republican*, December 28, 1911, the following in regard to Wooffindale:

"The Emerson laboratory has recently added a textile department to its organization, making it one of the largest and best-equipped laboratories for analytical and industrial chemistry in the East. To have charge of this department Doctor Emerson has secured W. H. Wooffindale, formerly of Providence, R. I. Mr. Wooffindale is a graduate of the Massachusetts Institute of Technology, class of 1892, and is a textile expert with twenty years' experience in the chemistry of textiles and practical mill work."

From the *Engineering Record*, January 20, 1912, the following in regard to Sherman:

"Mr. L. K. Sherman, assistant chief engineer of the Sanitary District of Chicago, will leave the district February 1 to enter into a partnership with Mr. George Bonnersberger, forming the firm of L. K. Sherman & Co., with offices at 3100 West Thirty-sixth Street, Chicago. This company proposes to act as engineer and contractor for municipal work, making a specialty of water works, sewerage and sewage disposal. Mr. Sherman was graduated from Massachusetts Institute of Technology in 1892. He spent three years with various railroads and then worked for the Sanitary District for five years during the active construction, being in charge of the bear-trap dam and controlling works at Lockport. For five years prior to 1905, when he again accepted a position with the Sanitary District, he was at work on various railroads and had a consulting engineer's office in Chicago, reporting on water-power projects at Big Bonnet Falls in Canada, the Etowah River

project in Georgia and the municipal water-power plant at Oskaloosa, Iowa. Recently, with the Sanitary District, he has been in charge of various hydraulic problems and was assistant engineer in charge of the design of the North Shore channel."—William Y. Chute is active on the building committee of the Minneapolis Art Museum.—George Dorr has quit automobile business for Pacific Coast fruit lands.—Leo Goodkind, IV, is vice-president of Mannheimer Bros.' great department store at St. Paul and gives especial attention to the china and real estate business of the company. Their real estate lines have called for continued practice of architecture in connection with store and fittings added at St. Paul and in the development of dwelling house property at St. Paul and Duluth. Business of the china department takes Goodkind to China: Goodkind has been very active in promotion of the St. Paul Institute of Arts and Sciences, which is more like the old Lowell Institute than anything this side of Boston.—Ralph H. Sweetser, III, has been for four years with the Columbus Iron & Steel Co. as blast furnace superintendent. He has given special attention to "efficiency details" including method of operation, system of records, cost accounting and comparison of "actual" and "ideal."—Dwight P. Robinson became a member of the firm of Stone and Webster at the beginning of the year.

1893.

FREDERIC HAROLD FAY, *Sec.*, 60 City Hall, Boston, Mass.

FREDERIC H. KEYES, *Asst. Sec.*, 88 Broad Street, Boston, Mass.

In response to an invitation to dinner from A. F. Bemis, one of the largest informal gatherings of the class of '93 since graduation was held at the University Club, Boston, February 27. The guests of the evening were Professor Fred Parker Emery, of Dartmouth College, and Dr. Richard C. Maclaurin President of the Institute, both of whom are honorary members of the class. In addition the following members resident in or near Boston were present: F. B. Abbott, J. B. Baxter, A. F. Bemis, L. A. Bowker, S. N. Braman, S. A. Breed, T. M. Brown, L. B. Buchanan, C. N. Cook, N. P. Cutler, H. N. Dawes, E. D. Densmore, W. E. Evans, F. W. Fabyan, F. H. Fay, F. B. Forbes, W. S. Forbes, G. B. Glidden, G. M. Hooper, A. L. Kendall, F. H. Keyes, H. M. Latham, E. I. Leeds, A. M. Moody, H. A. Morss, E. S. Page, F. F. Phinney, A. A. Shurtleff, F. D. Smith, C. M. Spofford, C. W. Taintor, C. M. Taylor, H. C. Wilson, E. L. Wingate. The object of the meeting was to stimulate interest in the building of the New Technology and to outline the manner in which the individual members of the class can assist the Alumni Fund Committee in securing subscriptions, and was the first meeting for this purpose held by any of the classes. The '93 class committee is composed of A. F. Bemis, chairman; Henry

A. Morss, secretary; G. B. Glidden, class president. During the dinner, Glidden presented the chairman with the '93 class purse, containing the first subscription to the Building Fund. Bemis was inclined to criticise the quality of the bag; but as the donation was made without restrictions and in the form of genuine copper coin, it was finally accepted after Taintor and Fabyan had made a futile attempt to count it. After dinner, Bemis assured those present that they would be allowed to depart financially unmolested. Then he called on Professor Emery, Doctor Maclaurin, Morss and Fay to make a few remarks in the interest of the New Technology. Professor Emery outlined the difference in the character and methods of instruction between universities and technical schools. He suggested that the New Technology should combine the best of the methods employed by both classical and technical schools, with the idea of incorporating the broader principles of university education so far as consistent with giving the students the training which will best fit them for business in their special lines of work. Doctor Maclaurin spoke of the general and widespread interest which he had found among Tech men and their friends all over the country recently, and made it plain that the building up of the New Technology must be accomplished so as to be above criticism and in every way in keeping with the high standard for which Technology has always stood. He explained briefly the possibilities of the new site, illustrating his remarks with sketches showing one of the schemes suggested for the development of the property. In this particular scheme, appropriate memorials to Rogers and Walker form the central features in the group of working buildings and dormitories surrounding an open area facing the Charles River Basin, which, with Beacon Hill in the distance, is recognized by every one as the chief feature and attraction of the location. Doctor Maclaurin stated that every effort would be made to have the buildings architecturally perfect, and for this reason it might be necessary to postpone some of the development until sufficient funds were available for construction. Fay, who is a member of the central Alumni Fund committee outlined briefly the proposed method of securing subscriptions; and it is apparent that all Tech men and their friends will be given every opportunity to contribute toward the rebuilding of the Institute. Morss, secretary of the '93 class Fund committee, distributed lists giving the names of all men ever connected with the class, for the purpose of securing information which would make it possible to reach every '93 man effectively, and called attention to the fact that while class spirit is a good thing, we should all keep in mind that it is the Massachusetts Institute of Technology, first, last, and forever.—The second '93 dinner in connection with the Alumni Fund campaign, was held at the Technology Club, New York City, on Monday evening, March 25, when fifteen members of the class assembled as guests of Henry A. Morss, secretary of

the class fund committee. Those present were: E. L. Andrews, G. T. Blood, L. W. Case, S. D. Dodge, F. H. Fay, G. B. Glidden, H. N. Latey, F. W. Lord, C. F. Morse, H. A. Morss, F. M. Southard, C. M. Spofford, A. Walker, C. R. Walker, W. C. Whiston. Remarks were made by Henry Morss, who spoke of the plans for the class campaign; by Glidden, president of the class; by Fay, who emphasized the need of the financial support of the alumni in order to complete the great work of building the new Technology, and by Spofford, who spoke on Institute developments from the Faculty standpoint. Great interest was shown by the New York men and a most enjoyable evening was spent.—Through the kindness of George B. Glidden, an informal class dinner was arranged at the Boston Art Club, December 14, the following members being present: "Jack" Ashton, Bemis, Braman, Breed, Carney, Fay, W. S. Forbes, Glidden, Hopewell, Keyes, Latham, Morss, E. S. Page, J. H. Reed, Spofford and Taintor. The call for this meeting announced that the entertainment would be in the form of a publicity and experience meeting. The dinner, which was an exceptionally good one, was served under very pleasant circumstances, as the Pierian Sodality of Harvard happened to give a concert at the club on the same evening. Following the dinner, those present related in turn what they had been doing since leaving the Institute, with special reference to their present occupations. In one or two instances substantial tokens representing the line of work in which the members were engaged, were distributed to those present. It is believed that meetings of this character would be of considerable benefit to other classes of the Institute, as it gives the members intimate knowledge of what the others are doing, under most favorable circumstances and in a way which is most likely to be of mutual benefit.—"The Theory of Structures" by Charles M. Spofford stands unexcelled as a text-book on structural engineering, and it is the first book published to follow the general lines of teaching which have made that course at the Institute so successful. After a number of months of post-graduate study at the Institute in 1893-94, and some years of active work, principally with the Phoenix Bridge Company, Spofford came to the Institute in the fall of 1896, as instructor in civil engineering, and in 1903 was made assistant professor. Two years later he became professor of civil engineering in charge of the department at the Brooklyn Polytechnic Institute, and in his four years' stay there did notable work in reorganizing and building up his department. When, in 1909, Professor Swain resigned, as head of the department of civil engineering at our own Institute, Spofford was chosen to succeed him as Hayward professor of civil engineering and later was made head of the department also. During all these years Spofford has given considerable time to active practice, and this practical training, combined with his experience as a teacher, enabled him while at Brooklyn, to prepare an excellent

set of original notes on the theory of structures which he used as a basis for a course of lectures. These notes, while following in the main the general teaching methods which Professor Swain had developed so successfully at the Institute, nevertheless, differed considerably from the latter's notes in their manner of presentation, as well as in range of subjects covered. After two years' teaching experience with these structures notes at the Institute, in addition to testing them at Brooklyn, Spofford amplified his lecture notes and published them in the form of a text-book last October. It is gratifying to note that the demand for the book from technical schools and from practicing engineers is such that a second edition is now on the press. Although primarily a text-book designed to train students in the theory of the subject, it is nevertheless full of information of use to the engineer in active practice, and will form a valuable addition to an engineer's reference library. A review of the book appears elsewhere in this number.—Arthur Farwell delivered an address on "Music for the People" at the Recreation Institute held in Brookline, February 15 to 17, and an address on "Religious Music and the American Spirit" at the Church of St. Mark's in the Bowery, New York, March 3. Since the successful original production of his "Hymn to Liberty" at the New York Municipal Fourth of July celebration at City Hall last year, he has followed up closely the matter of music in its broadest application to the uses of American people, especially with regard to the celebration of national holidays. Two years' experience as supervisor of municipal concerts in New York City has given him much insight into the relation of music and the people on a large scale. Farwell is a member of the editorial staff of *Musical America* and had an article entitled "Hammerstein" in the February *Review of Reviews*, also one on "Music for the People" in the October *Review of Reviews*, setting forth the results of his two years' work in New York.—In November, Charles W. Taintor visited Yuma, Ariz., where he has business interests and where the United States Government, through the reclamation service, is constructing a large irrigation system along the Colorado River. At Laguna, twelve miles above Yuma, a substantial dam has been constructed, from both ends of which the rich silt-laden waters of the Colorado will be conducted to thousands of acres of heretofore unproductive land. About ten thousand acres of land on the California side of the river is already receiving water for irrigation and is being cultivated by settlers who have taken the land up in forty-acre homestead units. An inverted siphon is being built at Yuma to conduct the water under the river to the Arizona side and eighty thousand acres of land in the Yuma Valley is promised water by April 1, 1912. Later, water will be supplied to the forty or fifty thousand acres of the mesa or high land which lies just south of Yuma. In a few years this mesa land will probably be

one of the best citrous fruit districts in the United States. Early oranges, grapefruit and lemons also figs and dates, have been raised on the Yuma mesa for years, the conditions being almost ideal. Here one will find the rare combination of a semi-tropical climate, land easily cultivated and an inexhaustible supply of rich fertilizing water. Up to the present time no insect pests have developed and the clean foliage and fruit are noticeable. In the Southwest one finds a strong sentiment toward having irrigation projects carried out at the expense of the Federal Government and not paid for out of the land that is made productive. The argument is that great irrigating works are for the good of the whole country and should rank with river and harbor improvements. The long time required to establish an irrigation system and the necessity of water at low cost to the farmer are important considerations.—J. B. Baxter of East Milton, Mass., reports the arrival in his family of a daughter, Katharine Frances, born October 27, 1911.—Maurice B. Biscoe is the proud father of his fourth child and second daughter, Anne Pulsifer Biscoe, born in Colorado Springs, January 14, 1912.—J. S. Codman became interested in the electric vehicle situation last summer, and is at present vice-president and sales manager of S. R. Bailey & Co., Inc., manufacturers of electric vehicles, with headquarters at 895 Boylston Street, Boston.—Arthur H. Jameson writes "Will you please add to the vital statistics of the class the birth at Branford, Conn., December 1, 1911, of a son, Thomas Hugh Jameson?"—Harry M. Latham formerly district engineer for the American Steel & Wire Co. at Worcester, Mass., assumed the management of the power apparatus department at the B. F. Sturtevant Company, Hyde Park, Mass., February 1, 1912.

We quote the following from the *Boston Record*:

"Alexander Holmes is a graduate of Harvard and M. I. T., and his knowledge of engineering has stood him in good stead in handling more than one problem of politics. He was one of the managers of Cushing's campaign for the speakership, and he continues to be one of the leading counselors of his former candidate. He rarely speaks on the floor, and is modest and retiring, but is regarded as highly in the Massachusetts House as is Senator Crane in the national Senate. To Alexander Holmes and Senator Harry N. Stearns of Cambridge, the chairman of the committee on election laws, with Representative McGivern of Boston, has been assigned the task of drawing up the new presidential preferences primary bill."

In connection with the returns for the forthcoming Register of Former Students, the following changes of addresses among members of the class have recently been reported:

Miss Adelaide M. Abell, Technical High School, Providence, R. I.—Herbert W. Alden, 33 Warren Avenue, East, Detroit, Mich.—Frank W. Alexander, Richmond Me.—Orren Allen, 207 South

Broadway, Denver, Colo.—Franklin G. Ashton, with New England Engineering Company, 50 Church Street, New York City.—Frank S. Badger, care J. G. White & Co., Limited, La Calera, Pro de Cordoba, Argentina, S. A.—George S. Barrows, with United Gas Improvement Company, Philadelphia, Pa.—C. E. Belcher, 141 Milk Street, Room 953, Boston, Mass.—Hereford Berry, 316 East End Avenue, East Liberty Station, Pittsburgh, Pa.—John R. Brittain, 324 1-2 South Hill Street, Los Angeles, Cal.—Wilfred A. Clapp, care Construction Quartermaster, Fort McDowell, Cal.—Farley G. Clark, care Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.—Nathaniel R. Craighill, Eck Dynamo & Motor Co., Belleville, N. J.—William E. Davis, Jr., 15 Columbia Heights, Brooklyn, N. Y.—George K. Dearborn, care Barrett Mfg. Co., Elizabeth, N. J.—Lawrence B. Dixon, Victoria and Madison Avenues, Riverside, Cal.—Haven Doe, Salmon Falls, N. H.—Theodore T. Dorman, Indian Head Plantation, Upper Montclair, N. J.—Joseph C. Dufort, 555 St. Antoine Street, Montreal, Que.—Francis W. Fabyan, 72 Franklin Street, Boston, Mass.—Edmund G. Fairfield, 1311 Machesney Building, Pittsburgh, Pa.—Harold E. Fales, 27 Tremont Row, Boston, Mass.—Mrs. Londa S. Fletcher (formerly Miss L. L. Stebbins), 56 Eucalyptus Road, Berkeley, Cal.—Herbert Forsyth, Claremont, N. H.—William B. Gamble, Division of Technology, New York Public Library, New York City—Clarence D. Gilchrist, Arlington, Vt.—A. L. Goetzmann, 322 Chicago Avenue, Oak Park, Ill.—Marvine Gorham, 170 McDougall Avenue, Detroit, Mich.—William H. Graves, with Waldo Bros., 102 Milk Street, Boston, Mass.—Walter U. Gutman, 130 Arch Street, Lewiston, Me.—John C. Hawley, Fort Moultrie, S. C.—Alexander Holmes, Kingston, Mass.—Frederick H. Howland, Seventh and Chestnut Streets, Philadelphia, Pa.—Eugenio T. Iglesias, San Juan, P. R.—Charles H. Johnson, United States Naval Station, Guantanamo, Cuba.—Harry W. Joy, 920-926 Security Bank Building, Minneapolis, Minn.—Professor S. C. Keith, Massachusetts Institute of Technology, Boston, Mass.—Henry R. Kimball, 477 Third Street, Brooklyn, N. Y.—George I. King, 200 Brady Street, Butler, Pa.—John Labouisse, Selma, Adams County, Mississippi.—William F. Lamb, 1734 Beacon Street, Waban, Mass.—Arthur C. Lotz, 255 East Superior Street, Chicago, Ill.—Gustav J. Meyer, Woodburn Avenue, Walnut Hill, Cincinnati, Ohio.—George L. Mirick, Curve Road, Stoneham, Mass.—Mrs. Herbert R. Moody (formerly Miss Edna Wadsworth), 330 Convent Avenue, New York, N. Y.—Charles F. Morse, Wallkill, Ulster County, N. Y.—Harold N. Mott-Smith, 38 Glenwood Boulevard, Schenectady, N. Y.—Alden R. Palmer, 34 Ransom Street, Muskegon, Mich.—Edwin M. Parker, Kensington Park, San Diego, Cal.—Walter T. Peck, P. O. Box 769, Havana, Cuba.—William Reed-Hill, 1603 Ford Building, Detroit, Mich.—Robert D. Reynolds, 356 Commonwealth Avenue,

Boston, Mass.—Harry F. Roach, 1430 Syndicate Trust Building, St. Louis, Mo.—Samuel F. Rosenheim, 1334 Washington Avenue, St. Louis, Mo.—Howard R. Sargent, 106 Avon Road, Schenectady, N. Y.—Frederico Raymon Seyffert, Yaquivo, Chihuahua, Mexico.—Lamson P. Sherman, 1052 Twenty-sixth Street, Des Moines, Iowa.—Arthur A. Shurtleff, 89 State Street, Boston, Mass.—Fenwick F. Skinner, 315 West Seventieth Street, New York City.—Rev. George B. Smith, Darien, Conn.—John I. Solomon, care Robert E. Solomon, 31 West Twenty-seventh Street, New York, N. Y.—Frederick C. Sutter, 174 Canfield Avenue, West, Detroit, Mich.—Winthrop L. Tidd, 297 Tremont Street, Taunton, Mass.—Toros H. Torossian, City Engineer, Lome, Bulgaria.—William A. Tucker, Warnerville via Cooperstown, Stanislaus County, California.—Dr. Augustus B. Wadsworth, 114 West Fifty-fifth Street, New York City.—Charles R. Walker, 229 Elizabeth Avenue Elizabeth, N. J.—Herbert L. Wardner, 46 Cornhill, Boston, Mass.—Frederic I. Warren, 706 Tenth Street, Bay City, Mich.—Cadwallader L. Washburn, University Club, Mexico City, Mexico.—Harry E. Weeks, 1900 Euclid Avenue, Cleveland, Ohio.—Harry M. Westcott, Richmond, Ind.—Samuel E. Whitaker, Hasbrouck Heights, N. J.—Parker H. Wilder, Neave Building, Cincinnati, Ohio.—J. E. Woodbridge, care Ford, Bacon & Davis, 85 Second Street, San Francisco, Cal.—Osvaldo Ycaza, care Ycaza Hos., Apartado 132, Panama.

1894

PROF. S. C. PRESCOTT, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

Piper is a member of the board of aldermen of the city of Melrose. He was formerly a member of the common council and then after a year without political activity, he was elected to the aldermanic board and apparently gets much interest and amusement out of his public work, in addition to his extensive duties as the general manager and superintendent of the big factories of the Boston Rubber Shoe Company.—We were pleased to see our old friend Schiertz back in Boston after several months spent in the interior of Bolivia in putting up a smelter. Schiertz's opinion of the conditions in that part of South America is not of the most rosy character, as he says that cannibalism is still practiced there and the Indians are treacherous so that one never knows when he is safe. On the whole it seems to be good to be back in the States, although his predilections for warm climates, Mexico or Central America, will doubtless lure him away soon.—Bacheller has been doing some investigation work upon treatment of certain ores at the Institute during the past few weeks.—H. A. Brown is a practicing physician in Whitinsville, Mass.—Bowles is studying chemistry in Kerby, Ore.—Abbot recently gave a lecture before the Society of Arts in Boston, which was very highly spoken of and embodied the

results of many of the researches which he has been carrying on in different parts of the world during the past few years. His book on the sun received a very favorable criticism from Professor Cross in one of the recent numbers of the REVIEW, and has also been highly spoken of in the *Nation*, *Literary Digest*, and other periodicals.—H. N. Parker recently presented a paper on the "Characteristics of Typhoid Fever Outbreak" before the Illinois Water Supply Association, which held its annual meeting at the University of Illinois.—Prescott has recently returned from a brief visit to Panama and Costa Rica which was most enjoyable. Two days were spent at the Isthmus in looking over the canal and some of the other sights of the immediate region, and then ten days were spent in investigation work in the interior of Costa Rica, the particular problem under investigation being a serious plant disease. It is too early to tell exactly what the results will be. Altogether it was a very interesting and instructive journey and one which he would be glad to recommend to anyone who seeks a month of recreation and relaxation combined with some interesting sight-seeing.—E. I. Marvel was married Tuesday, February 20, to Miss Mary Elizabeth Brayton at the Church of the Ascension in Fall River, Mass.—C. G. French is now located at New Hartford, N. Y.—P. W. Lincoln sends 1507 Grace Avenue, Cleveland, Ohio, as his address.—R. G. Moss is with the General Electric Company at Everett, Mass.

1895.

GEORGE A. ROCKWELL, *Sec.*, 101 Tremont Street, Boston, Mass.

A very successful dinner of the class was held at the Boston City Club on February 6, 1912. There were present J. L. Newell, W. E. Goodyear, Roger Williams, W. D. Parker, L. K. Rourke, E. L. Hurd, W. H. Winkley, A. D. Fuller, H. K. Barrows, G. A. Cutter, E. J. Loring and G. A. Rockwell. During the evening Dr. H. W. Tyler made us a short visit. It is probable that the class is not aware of the nature of the work done by the Alumni Council nor is it aware of the good work done by its representative on the council, A. D. Fuller, and it was thought at the dinner that it would be desirable to have the functions of the council stated, so that members of the class could realize that it is for them to communicate anything in the way of suggestion directly to the council or to the class representative. Mr. Fuller has written to the secretary a letter explaining the position of the Alumni Council, a copy of which follows:

I am very glad to have this opportunity to give to the class a few notes relating to the Council of the M. I. T. Alumni Association in which the class of '95 has a voice through its representative.

The interests of the alumni were originally conducted by the M. I. T. Alumni Association through its officers and committees appointed once a year at the meet-

ing held on the evening of the annual dinner. Although the efforts of the association were productive of good results, due principally to the conscientious and loyal work of its officers and committees, the meetings occurred seldom and at a time when the principal interest was concentrated on the annual dinner. It was evident that greater results could be secured by a change in the form of government and an increased organization. The affairs of the Institute were handled by the M. I. T. Corporation without any direct connection with the alumni. There was need of a closer working arrangement between the Corporation and the alumni to produce the harmonious results necessary to the growth of Technology. This led to the formation of the Association of Class Secretaries. Their meetings were held frequently, their enthusiasm grew constantly and they were in fact the beginning of the New Technology spirit. They formed a body which offered to the Corporation a better working organization whenever they desired to go outside the Corporation itself for advice or held particularly on matters affecting the alumni. The Association of Class Secretaries started the well-known custom of five-year reunions; the Technology night at the Pop Concerts; the TECHNOLOGY REVIEW and many other evidences of the growing support, enthusiasm and loyalty of the Technology alumni.

The forming of the council followed as a natural result of the responsibilities and spirit awakened by the Association of Class Secretaries.

As alumni we have now:

- a. The Alumni Association as our official body.
- b. The Council of the legislative branch of the Alumni Association.
- c. The Association of Class Secretaries as a co-operative institution.
- d. The local alumni associations and clubs as resident social organizations.

After the formation of the council the Association of Class Secretaries was continued as a co-operative institution interested in alumni and Technology welfare, but unhampered by direct responsibilities as a whole. Since some classes elected their class secretaries for life it was deemed advisable to have the class representative of the council elected for a period of five years. This would tend to keep the council a live body by the occasional stirring of interest in the election of its representatives and offered the advantage of having, if desired, two minds each particularly suited to the work to be done.

The council accepted from the old Alumni Association and the Association of Class Secretaries much of the representation and responsibilities of the alumni in regard to their relations to the Corporation, to themselves and to the public. It assumed the responsibility of the publication of the REVIEW and adopted it as its official organ. Although no stated meetings occur it has been the custom to hold about six meetings a year. To make the council broadly representative of the whole alumni, its officers were made those of the Alumni Association together with the five latest past presidents; ten representatives at large; one representative from each class and a representative of each alumni society or club having twenty-five or more members.

The class representatives were intended to be renewed at the rate of about one fifth each year, each representative being elected to serve five years. To determine what classes elect representatives add two to the current year and subtract three from the current year. Any class ending in either of these results elects a representative that year. Example: This year, 1912 plus 2 = 1914 and 1912 minus 3 = 1909, therefore 1909, 1904, 1899, 1894, etc., or all classes ending in nine or four elect representatives this year. To figure what year a class will elect a representative add three or subtract two. Example: $1895 + 3 = 1898$ or $1895 - 2 = 1893$, therefore the class of 1895 will elect a representative in 1913, 1918, 1923, etc.

To get a detailed idea of the work that has been accomplished it would be necessary to read thoroughly not only many pages of printed matter which have appeared in the REVIEW, in the alumni circulars and reports, the daily newspapers and other publications, but also to get into personal touch with many alumni who have done the work.

Among the more recent important results brought to a successful termination through the council are the Congress of Technology held last year; the gift of a

summer school property; the obtaining of state aid to the amount of \$1,000,000, and the final selection of a new site for the Institute.

On account of restricted space here further details will be given in a later class letter. Every '95 man should remember that he is an important factor in the development of Technology and that his personal representative had attended fourteen out of the fifteen meetings held since the first meeting of the council, May 12, 1909, for the express purpose of representing him and is still waiting to know what he wishes done. Call, write, wire or telephone *now*.

It is intended later on to send to all the members of the class a much more detailed description of the past and future work of the council and Mr. Fuller has very generously agreed to write such a description.—F. W. Draper has been appointed consulting engineer for the Verk Isetz Corporation, of Ekaterinburg, Russia, and sailed for Europe, March 7. He will have charge of the design and construction of a copper smelting plant at the Kalata mines, and with the complete reconstruction of the existing plant at the Pushminsky mines.

The following changes of addresses are noted:—William B. Claffin, 9 E. 69th Street, New York City, N. Y.—John W. Cooke, 4402 Kingswell Ave., Los Angeles, Cal.—Watson E. Goodyear, 136 Hemmenway Street, Boston, Mass.—A. L. Simmons, State Highway Engineer's Office, Watertown, N. Y.—L. K. Yoder, 5810 Murrayhill Place, Pittsburgh, Pa.

1896.

PROF. CHARLES E. LOCKE, *Sec.*, Mass. Inst. of Tech., Boston Mass.
DR. JOHN A. ROCKWELL, *Asst. Sec.*, 24 Garden Street, Cambridge,
Mass.

A number of letters have been sent out to the men asking for news. The only reply received so far came from Chicago and reads as follows: "Answering your letter of the 23d ultimo, I am very sorry that I am so busy that I will not have time to write this information that you desire." The fellows ought to realize that the secretary cannot, single-handed, supply satisfactory class news, and must receive some support.—R. E. Backenhus, called on February 23. He has just returned to the Charlestown Navy Yard after doing a turn as civil engineer in the Philippines, in the United States Navy. The secretary hopes to get from him for the next REVIEW a little story of his duties and impressions in that district.—A. C. Looztz, Course I, called on the secretary on February 3, the first call he has made since 1896. Such of his past history as he chose to relate dealt with his work on the U. S. Reclamation Service, and in general contracting lines. Among other things he has worked on Charles River Dam Construction, with the Bath Iron Works in Maine, construction in Porto Rico and numerous other places. This kind of employment has kept him on the move, and he is now ready to settle down. At present

he is living in Newton, Mass., but is the owner of a 183-acre farm in Barre, Mass., where he hopes to retire some day. A cordial invitation was extended to the class to make this farm headquarters at future reunions. It is understood that a beautiful outlook is to be had over the valley of the Ware River. Lootz has been married a long time and has one child, a 12-year-old boy who is being carefully coached in the mysteries of hammer throwing.—It is a pleasure to note the appearance of the third addition, re-written and enlarged of the "Measurement of High Temperatures" by G. K. Burgess, of the Bureau of Standards, Washington, and H. Le Chatelier. Burgess is getting very near the head in his special line.—We are sorry to chronicle a very sad mishap to our well-known citizen and stationer, A. D. MacLachlan. On February 16, an auto-truck became unmanageable, and dashed across Boylston Street into the front of "Mac's" store, badly wrecking the plate glass, but fortunately for "Mac" he was in the back part of the store at the time and escaped physical injury, and the only damage was financial.—At the alumni dinner at the Hotel Somerset the following '96 men were present: John Rockwell, John Putnam, Jimmie Driscoll, and Bert Thompson. The last named has been elected president of the Merrimac Valley Alumni Association. Putnam has not been seen here for a long time. He had been making a trip East, and took advantage of the opportunity to see some of his old classmates.—F. H. Smith has left Cambridge to go with the Federal Rubber Company, at Milwaukee, Wis. In his régime their tire product has increased from nothing on November 1, to 150 tires per day at the present time, and they expect shortly to put out 500 tires per day.—W. H. McAlpine spent the latter part of February in this vicinity and returned home on February 23. He is located at Frankfort, and has charge of the locks and dams which are being constructed on the Kentucky River to said navigation for the purpose of reaching the coal and lumber district. "Mac" looks well, but is a little thinner. He has a girl four years old.—Con Young called on the secretary on February 21, being in Boston on business in connection with the local branch of the Armstrong Cork Company of New York with whom he has been associated for a number of years. For some time he was in the machinery department but more recently has been connected with the insulation department. From a beginning, less than twenty years ago, the use of waste cork in the manufacture of cork insulation, especially for refrigeration has had a wonderful growth. "Con" is especially interested in refrigeration at Tech. There is a strong demand for refrigerating engineers who should have a good knowledge of building construction, machinery, sanitation, ventilation and food preservation.

Outside of the use of cork for refrigeration, there is a large manufacture of linoleum, tiling, and other forms of covering. A

sanitary brick made of ground cork and tar has found application in model dairies, where the resilient and non-absorptive properties make it the most sanitary, and at the same time healthful flooring for cow stalls.

Cork installation is not applicable for hot pipes, and the company has therefore developed a steam pipe covering of diatomaceous earth and asbestos which has been shown by tests to be more efficient than the commercial 85 per cent. of magnesia covering.

JOHN T. WERNER

Report has just been received of the death of John T. Werner, at Pottsville, Pa., on July 24 last. He was with us only a short time as a student, and therefore may not be recalled by all of us. For the greater part of his life he was district land agent of the Philadelphia & Reading Coal and Iron Co., and lived in Pottsville. He was married about 1904, and is survived by his wife and one sister.

Changes of addresses have been received as follows:—Harry P. C. Browne, 141 Broadway, New York, N. Y.—Stephen D. Crane, 281 Washington Street, Newark, N. J.—Fred M. Crosby, Hampton Court, Brookline, Mass.—Charles K. Cummings, 8 Beacon Street, Boston, Mass.—Robert A. Davis, 50 Oliver Street, Boston, Mass.—Miss Rose L. Dexter, 400 Beacon Street, Boston, Mass.—Miss Ada M. Fitts, Hyde School, Hammond Street, Boston, Mass.—Floyd Frazier, 1010 Sterger Building, Chicago, Ill.—Robert L. Fuller, 44 Front Street, Worcester, Mass.—Edward B. Gordon, Jr., 507 West Jackson Boulevard, Chicago, Ill.—Frank E. Guptill, care of Stone & Webster, 147 Milk Street, Boston, Mass.—Walter A. Hall, 15 Hardy Road, Swampscott, Mass.—George E. Harkness, 12 Hubbard Road, Uphams Corner, Mass.—Harry U. Hart, Canadian Westinghouse Company, Hamilton, Canada.—Joseph Harrington, 28 East Jackson Street, Chicago, Ill.—Hiram B. Hartwell, 206 Brown Street, Waltham, Mass.—William E. Haseltine, Ripon Light & Water Co., Ripon, Wis.—Albert D. Hatfield, 1900 East 90th Street, Cleveland, Ohio.—Ralph C. Henry, Carter Building, 12 West Street, Boston, Mass.—Haven J. Hilliard, P. O. Box 44, Jamaica Plain, Mass.—Frank A. Howard, Hohokus, N. J.—Joseph M. Howe, 722 First National Bank Building, Houston, Texas.—Benjamin Hurd, 34 Commerce Street, New York, N. Y.—Charles Johnson, 7925 Sycamore Street, New Orleans, La.—Charles Morris, Jr., Bureau of Supplies and Accounts, Navy Department, Washington, D. C.—Edwin S. Northrup, State Architects' Office, Albany, N. Y.—Dr. Delia M. O'Connell, 63 Maple Street, Marlboro, Mass.—Walter O. Pennell, Gates Building, Kansas City, Mo.—Thomas T. Perkins, 315 Lincoln Avenue,

Clifftondale, Mass.—Edwin D. Pingree, 815 Grosvenor Building Providence, R. I.—William L. Root, 71 W. Housatonic Street, Pittsfield, Mass.—Andrew L. Russell, 200 Devonshire Street, Boston, Mass.—John C. Scovel, 61 West Kinzie Street, Chicago, Ill.—Henry K. Sears, 390 Hope Street, Providence, R. I.—B. H. Shepard, Harrison Street, East Orange, N. J.—Henry H. K. Sheridan, White Co., Broadway and 62d Street, New York, N. Y.—Samuel T. Smetters, 76 West Monroe Street, Room 1600, Chicago, Ill.—James S. Smyser, 30 Chestnut Street, Worcester, Mass.—Harrison S. Taft, 211 Central Building, Seattle, Wash.—Frank A. Thanisch, Wickenburg, Ariz.—Samuel F. Thomson, P. O. Box E, New Platz, N. Y.—Mrs. F. W. Lee, 63 Peter Parley Road, Jamaica Plain, Mass. (Mrs. Marion L. Chamberlain).

1897.

JOHN ARTHUR COLLINS, *Sec.*, 67 Thorndyke Street, Lawrence, Mass.

F. E. Mansfield is with the Holophane Company at their New York office 16 East 40th Street.—L. S. Cowles, I, is secretary of the recently organized Engineers Club of Boston. The club have leased the building at 2 Commonwealth Avenue which will be remodelled to suit the new requirements. This place will then become the headquarters and meeting place of the various engineering societies of Boston, similar to the United Engineering Building in New York City.—Six '97 men were present at the alumni dinner: Worcester, Learned, Hopkins, Bradlee, Dougherty, and Marshall. Omitting Learned who is in the lightweight class the average weight of the other five was 228 pounds. (Compiler of this data did not state whether the weights were taken before or after the banquet.)—The first reunion and dinner of the season was held on January 16 at the Copley Square Hotel. Those present were: Bradlee, Sawtelles, Harry and W. O., Moore, Hosmer, Learned, Lawler, Fuller, Humphreys, Worcester, Pike, Hopkins, Carty, Marshall, Eames, and Dougherty. Statistics taken showed that twelve of the sixteen were married, and had a total of eighteen children. After the dinner those present adjourned to the Technology Chambers where the evening was spent in bowling.—In the January issue of *Science Conspectus* published by the Society of Arts A. G. Woodman has an article on the working of the Pure Food Law, its application, effectiveness, and also the immense amount of work necessary to an intelligent and fair enforcement of the law.

FIFTEENTH ANNIVERSARY OF GRADUATION

This year occurs the fifteenth anniversary of our graduation, and extensive plans are already under way for a proper observance

of the event. Circular letters have been sent out to all members of the class, detailing the general plans, and inviting a reply as to possible attendance. At the time of writing (February 24) over thirty favorable replies have been received. The time of the happenings is to be from noon on Wednesday, May 29, to noon on Sunday, June 2, the place is to be the "Cotocheset House," Osterville, Mass., which is located on the south shore of Cape Cod. The class of '91 met there and report an excellent time. Among the attractions are boating, bathing, tennis, golf, baseball, sleeping, story-telling, "amateur-night" performances, etc. All of this, including an excellent table, is to be had at a cost of about \$5 per day per man. A tentative program as laid out by the executive committee is as follows:

Wednesday, May 29.—Leave Boston at noon in automobiles, arriving at Osterville in time for a Get-together dinner; speech-making by everybody (not all at once); songs; nightcaps.

Thursday, May 30.—Morning—Tennis and Golf tournament preliminaries; fishing; boating. Afternoon—Class Baseball (not necessarily high class). Evening—Whist.

Friday, May 31.—Morning—Tennis and Golf continued; Automobile trips along Cape Cod. Afternoon—Class Baseball. Evening—Concert.

Saturday, June 1.—Morning—Tennis and Golf Finals; Motor boat trip to Cotuit. Afternoon—Grand Baseball game. (After the two previous days of practice this ought to be "some game.") Evening—Class vaudeville (Hook Night); Award of Tournament prizes and degrees.

Sunday, June 2.—Morning—Swimming contest and water sports. (Just why the baths have been postponed to the last day the secretary cannot make out); Motor boat trip to Sacconnessett lightship; *Church*—(The committee did not have this down but the secretary can not forget the training of boyhood, so makes this addition). Noon—Final dinner. Afternoon—Return to Boston; Automobiles on tap at all times. (The committee made no mention of anything else being on tap).

Monday, June 3.—Renew old acquaintances at Tech.

Tuesday, June 4.—Class dinner at University Club at 6 p. m. Then go in a body to Pop Concert.

Now, fellows, here is a great opportunity to get together as we have not been for fifteen years, and as we may not be again for some years. We shall be away by ourselves, no business cares allowed, nothing but mirth and jollity and good fellowship. Ninety-seven never had much of a reputation for getting-together; let us make one this year, and set a mark for other classes to strive to reach.

—On Saturday afternoon, March 9, H. F. Sawtelle, I, conducted a party from the Civil Engineering Society of the Institute through the new Cambridge tunnel and subway. This subway begins at

Park Street, Boston, runs under Beacon Hill, then by bridge over the Charles River, entering the ground again, and ending at Harvard Square. The complete return trip occupied only 7 1-2 minutes. Sawtelle has been one of the engineers of construction.—Thomas F. J. Maguire, VI, has an important article in the March number of the *Engineering Magazine*. It is the first installment of a series of three papers on the "Relative Economy of Various Types of Draft Equipment." This particular article deals with "Stack Installations for Natural Draft." The other papers to follow will be on induced draft, and forced draft, with a supplementary section on economizers. Maguire has been engaged in consulting engineering work in the District of Columbia.

The second dinner and social evening of the season was held at the Colonial Club, Cambridge, on Tuesday, March 12. Despite inclement weather fourteen men were present. During the dinner the plans for the observance of the fifteenth anniversary of graduation by holding a four days reunion at Osterville were discussed. Already a goodly number of men have signified their intention to go down and the event will be one grand time. After dinner the fellows adjourned to the bowling alleys, and there proceeded to the study of strikes and spares (and misses). Altogether a most enjoyable evening was spent. Those present were: Bradlee, Sawtelles,—Billy and Harry, Loveland, Fuller, Humphreys, Currier, Marshall, Spring, Hopkins, Moore, Learned, Breed, and Dougherty.—William G. Hill, V, superintendent of the Apsley Rubber Company at Hudson, Mass., has recently been elected as a director. The firm manufacture all kinds of rubber footwear and clothing.—William C. Ewing, VIII, is an example of a man who, in addition to his professional work, finds his remaining time taken up with outside interests and who sacrifices much of his own pleasure for the good of the people at large. He is president of the United Improvement Association, a member of the Chamber of Commerce Committee on municipal and metropolitan affairs and is chairman of its sub-committee on housing conditions. And even more important than these is the position of superintendent of the Wells Memorial Institute which he also holds. This organization is a social club for working people of both sexes; it is also the headquarters for an extensive system of co-operative buying, methodical saving, and such forms of education as will make possible economies in household expenditure, and increase the operatives' earning power.

1898.

ERNEST F. RUSS, *Sec.*, 70 High Street, Boston, Mass.

'Ninety-eight men in New York City have entered enthusiastically into the idea of having regular luncheons every two weeks. The inauguration of it was on Saturday the 17th of

February, when nineteen men sat down at the Technology Club, New York City. The following members were in attendance: Allyn, Cleaveland, Colcord, Conklin, Edgerly, Fenner, Gardner, House, Kaufman, Kellogg, Lansingh, McJunkin, Mommers, Nelson, Nolte, Rutherford, Sargent, Wilde and Winslow. This is remarkably good attendance and should serve as a model for '98 men around Boston.—Edgerly, by the way, lives at the New York Technology Club.—C. J. Skinner is now in Wichita, Kan., and can be reached at 209 East 9th Street.—L. A. Crowell's new address is 201 Devonshire Street, room 1713, Boston, Mass.—John S. Small's address is Nevens Laundry Company, Minneapolis, Minn.—E. A. Gehring is now an M. D., working in the laboratory of the Children's Hospital at Portland, Me. His address 310 Y. M. C. A. Building, that city.—Henry P. Richmond made a trip to Europe last fall in connection with his business.—B. H. Johnson's new address is 5015 North Warnock Street, Philadelphia, Pa.—R. Winthrop Pratt has moved to Cleveland, where he is expert engineer for the city on sewage disposal.—D. H. Blossom has been employed as chief engineer for King's Hill Extension Irrigation Company, King Hill, Ida. At last accounts he was acting superintendent for the company.—F. L. Bishop as Dean of the School of Engineers at the University of Pittsburgh, recently arranged for the public literature lecture by Professor Sedgwick.—Robert L. Dennison has lived in France the greater part of the past fifteen years.—Clinton E. Bray's address is City Hall, Somerville, Mass.—Walter Cleaveland writes he is busy raising three strong sons for the progressive branch of the Republican party; then goes on to say, that one at least should be a second Cleaveland in the White House.—L. D. Gardner made one of his periodic flying trips to London last fall. By the way he is eulogized in the following words of our hitherto unknown poet, John DeLost Underwood, on the occasion of the last informal dinner at Boston when he wrote:

"It grieves me that I cannot come
And help you down New England rum
Maybe if Lester Gardner's there
He'll help by using up my share."

1899.

H. J. SKINNER, Sec., 93 Broad Street, Boston, Mass.

Announcement is made of the resignation of Rickards from the editorship of the *Journal* of the American Public Health Association in order to enable him to devote all his time to teaching at the University of Illinois.—Fowle, until recently engaged in consulting work in Chicago, has now moved to New York and associated himself with the McGraw Publishing Company as associate editor of the *Electrical World*.—Herman H. Schmidt is to be

congratulated upon his appointment as chief engineer of the Bureau of Highways, Brooklyn, N. Y.—It will doubtless surprise many of our classmates to learn of the change of policy of our conservative brethren, Stone & Jackson, made public by a recent announcement in a Minneapolis paper of their selection as architects for the new wing to the National Guard Armory, which bore the heading "Picks Anarchists. Armory Board Selects Stone & Jackson for New Wing Work."—The marriage announcement has been received of Miss Bertha Ballantyne, to Mr. James H. Hancock in December, at Hudson, Mass.—The following changes of addresses have been received: Miss Alda H. Wilson, 2338 Loring Place, New York.—H. R. Stuart, 716 Wallace Avenue, Wilksburg, Pa.—R. P. Anderson, 4802 11th Avenue, Brooklyn, N. Y.—D. C. Churchill, Ahmednagar, Marathi Mission, India.—J. B. Ellery, care Division Street Y. M. C. A., 1621 Division Street, Chicago, Ill.—W. B. Flynn, 100 Broadway, New York.—William B. King, 89 Ringe Road, Dorchester, Mass.—B. R. Rickards, 910 1-2 California Avenue, Urbana, Ill.—L. S. Soule, 816 Michigan Avenue, Chicago, Ill.

1900.

COMMITTEE.

INGERSOLL BOWDITCH.

WILLIAM R. HURD, 2D.

RICHARD WASTCOAT.

PERCY ROLFE ZIEGLER.

NEWITT J. NEALL, 12 Pearl Street, Boston, Mass.

It will be recalled that three years ago when the class assembled at the second grand Technology reunion it was voted that instead of having a single person act as secretary and take care of the affairs of the class that a committee be established, consisting of five members, to be chosen from those living in, or in the vicinity of Boston. It was also provided that in case of death, or removal, any vacancies should be filled by the committee itself; in other words it would become a self-perpetuating body. The first change in the committee occurred when Gibbs moved from Cambridge to 502 Cincinnati Avenue, Tulsa, Okla. To us provincial Easterners it seems as if Gibbs might find quite a change from sleepy old Cambridge to wide-awake and hustling Tulsa; all the more hustling now because Gibbs is on the job. Deeply conscious that some thought the committee had done things that it ought not to have done and left undone those things which it ought to have done,—perhaps its sins were more those of omission than commission,—the committee decided to do something to redeem itself, and as a result we are happy to announce that Bill Hurd of Freshman football fame is now a member of the committee. "The king is dead—long live the king." While unquestionably there are good reasons for having the majority of the committee

drawn from those who live in and around Boston, the insistence that none but Boston fellows be on the committee seems to many of us to be a mistake. There are centers other than Boston where a good many Technology men congregate, such as New York and Chicago. It seems as if it would be a wise thing if some one living in these different places might be a member of the committee and be responsible for keeping us all in touch with the different members of the class. Would it not also probably result in better work being done if instead of each member being chosen for an indefinite length of time, he be chosen for a period of ten years; say, with the understanding that every two years a member would drop out and another one be chosen to take his place,—no member being eligible for reelection until having waited at least two years. If these suggestions meet with favor from the class the committee would be glad if it might hear of it.—The Technology site situation is now settled and it is only a matter of preparing plans which, of course, have already been carefully considered. We mention this because there are going to be a good many things which are noteworthy which will be mentioned in the TECHNOLOGY REVIEW. We think it would be well worth the while for any fellow who has any interest at all in Technology to see that his name is on the subscription list of the REVIEW. The TECHNOLOGY REVIEW office states that only 102 members of the class at present read the REVIEW. You will recall that over 178 graduated. Of course, those who don't read the REVIEW aren't going to see this letter, but if everyone who does see it would take it upon himself to see that those whom he meets, who do not regularly see it, subscribe, it will soon result in increasing largely the number who read the REVIEW. All this tends not only to interest the members, but to bring them closer together as a class.—We have just received word from Charles that he has opened an office and is undertaking civil engineering work, plans surveys, estimates on construction, etc.—Z. N. Briggs is now assistant engineer of the Lehigh Valley Railroad, at Wilkes-barre, Pa. He writes that one of his most vivid memories in Tech is matching pennies with Bowditch on the back seat of Sondy's class. I hope the draftsmen in Briggs' office are not caught by him matching pennies. There might be trouble.—At the class dinner at the Boston Technology Club, February 19th, Bowditch, A. B. Briggs, R. G. Burnham, Burn, Charles, Corliss, Jennings, Reardon, Emery, Remington, Richardson, Russell, Walworth, Wentworth, Tudbury, French, Howe, Osgood, Gilson and Wedlock were present. Corliss gave a very interesting talk on the power system of the Boston Elevated Railway, showing lantern slides of the new South Boston stations. Many questions were asked which showed that many were interested in the subject.—At the Alumni Council at the last meeting means of getting more interest in the association were discussed. Only 55 per

cent. of the alumni belong and about 23 per cent. pay dues annually. If the dues amounted to much it would be some justification for this showing, but as they are small it does seem as if more men ought to join the association. It is only by the contributions made in the form of membership dues which sustain the officers in undertaking the various things which have been done in the past and are projected for the future, for making the Institute a stronger institution and better for those who come after.—We also received word that a very successful dinner of the class was held at the New York Technology Club. We hoped to give information regarding it, but at the time the REVIEW goes to press we are still without advice from New York. We hope to include it in the next number.—Batchelder writes from Britannia Beach, B. C., that he is no longer with the Britannia Mining & Smelting Co., Ltd., but has become metallurgist of the Tom Boy Gold Mine Company, Ltd., Telluride, Colo. He also announces the birth of another son on November 3, 1911. Batchelder enclosed a clipping which has reference to the very remarkable work which was done by Leach, as vice-president and general manager of the Britannia Mining & Smelting Co., Ltd.

When Mr. Leach took charge of the property in the autumn of 1909 the position was not a satisfactory one nor was the outlook encouraging with copper at a low price, the developed ore generally too silicious for economic reduction and the average copper content of the ore too low for profitable working. . . . I have been informed on what I believe to be reliable authority that the production of ore during ten months of this year, to November 1st, was approximately 95,000 tons, and that shipments—part crude ore and part concentrate—to the smelter during this period totalled about 24,000 tons containing more than 7,000,000 pounds of copper and nearly 38,000 ounces of silver. Further, stopes opened in new ore bodies during the last two years will allow of the regular maintenance of a minimum output of 500 tons of ore per diem, which is less than the capacity of the aerial tramway to convey and the mill to treat daily.

Mr. Leach has left the Britannia with a record of thoroughly efficient and successful work, well considered and carried out with results that should assure full recognition of his ability and worth, and lead to his again finding a suitable field for the exercise of these valuable qualities when his health shall have been fully restored and he shall be prepared to resume active duty.

—Mortimer Silverman has resigned his position as electrical engineer of the Western New York & Pennsylvania Traction Co., Oleans, N. Y., and has accepted a position as electrical engineer of the Fort Dodge, Des Moines & Southern Railroad, with office at Boone, Iowa.—In this day of haste and change and when we are all striving to be up-to-date it is interesting to know of some one who leaves his office by the half century instead of by the year. By the middle of April, Bowditch will have moved from 28 State Street to a new office, 111 Devonshire Street, leaving offices which his family have occupied since 1865. Regardless of how fine the new offices are, we hardly feel that he is to be congratulated.—Chase announces that he has opened an office

in Chicago, for the practice of architecture and industrial engineering.

1901.

ROBERT L. WILLIAMS, *Sec.*, 154 Magazine Street, Cambridge, Mass.

Regarding the Class Record Book, the secretary wishes to inform the class that he hopes they will not despair of its ever appearing for he is working on it and expects to have it in the hands of the printer in a few weeks. It has been a slow process getting enough replies from the men to make the book worth while. It has also been quite a task to arrange the data after receiving it. The replies received have been extremely interesting and show our men are making good the world over.—Charles W. Adams is located at Baltimore, Md., where he is a representative of the American Radiator Company.—George D. Atwood is manager of the New York office of the Wheeler Condenser & Engineering Co., also president of Atwood Rearick Company, 149 Broadway, New York City.—Charles I. Auer is a custom assayer and metallurgical chemist operating an office of his own at Asarco, Dgo., Mexico.—The class secretary has just returned from Halifax, N. S., where he superintended the installation of a submarine bell bouy off Egg Island for the Canadian government. These buoys are manufactured by the Submarine Signal Company of Boston and are proving a great aid to navigation, as the bell can be heard anywhere from ten to fifteen miles and its audibility is not affected by fog or conditions of the atmosphere as the ordinary bell and whistle buoys are.—The following extract from the *Boston Transcript* was received just too late to appear in the last REVIEW: "Columbus, Ohio, November 21.—Wilhelmina Dranga Campbell, wife of Charles F. F. Campbell, executive secretary of the Ohio State Commission for the Blind, died suddenly here last night, of pneumonia. She met Mr. Campbell in 1900 while he was finishing his course at the Massachusetts Institute of Technology, and married him in 1903. He was then the executive agent of the Massachusetts Association for Promoting the interests of the Blind and into this new work she threw her energies enthusiastically. In preparing lantern slides for use in his lectures she rendered valuable service and during the first year of their married life their joint work in behalf of the blind was presented to forty thousand people. In 1906 the work they were doing, which up to that time had been privately supported, was taken over by the state. They conceived and started the *Outlook for the Blind*, a publication which is now the leading one devoted to the interests of the blind. In June, 1910, Mr. Campbell was called to direct the work of the Pittsburgh Association for the Blind and soon afterward the newly-created Ohio Blind Commission made requisition of his services; since that time they

have lived in Columbus. By her death three small children are left motherless."—Le Roy M. Backus, as president of the Lake Chelan Land Company, is engaged in the irrigation and development of approximately 7,000 acres of fruit land on the shores of Lake Chelan, Washington. He was married in 1906 and has two children.—Frederick Bass has been engineer of the Minnesota State Board of Health since 1906 and director of division of engineering since 1909.—Edward P. Beckwith is located at 20 Broad Street, New York City as a consulting engineer.—W. W. De Berard is the western editor of the *Engineering Record* and has his office in Chicago.—Huse T. Blanchard is with Carrere & Hastings, architects, and has been with them in New York City most of the time since graduation. He has spent one year abroad.—We hear through the *Transcript* of January 13 of the engagement of Robert M. Derby now of Montreal, to Miss Ruth R. Hubbell of New York City.—The following is quoted from the *Springfield Union*:

"Walter Molbray Curtis, formerly associated with F. A. Hannan, efficiency engineer of New York, has been made manager of the industrial engineering department of the New England Audit Company which has offices in this city, Worcester and Boston. For four years he was a member of the faculty in the engineering department of the University of Maine and for six years practiced as a production or efficiency engineer. The industrial engineering department of the New England Audit Company was established two and one-half years ago. It has become an important feature of the company's practice. The work of the department consists of industrial reports on factory conditions, scientific arrangement of machinery and equipment to obtain maximum production with minimum space, power and labor, and the introduction of factory cost systems."

A. H. B. Jeffords writes from Philadelphia:

I have received a number of inquiries as to my whereabouts and doings and have concluded after twelve years' meditation that it is about time I gave an account of myself. I went West after leaving college in 1898 and spent a year ranching around Meeker, Colo., which I found a stupid sort of business so I rustled my pack and started to ride to San Francisco to get a good look at the country. I then went to Pyramid, Ariz., as special representative of the owners of the Arizona & New England Mining Co., and the Nevada & New England Mining Co. They had a couple of wild cat mines that kept me some busy for a year. It got too hot in two ways so I beat it down the Colorado prospecting for four months. A summer's relaxation at Catalina helped me to forget the beautiful desert. Then tried fruit ranching in southern California, but Eastern breakfast food knowledge would not grow grapes. Returned to Philadelphia and went to work in the Whilldin Pottery Company, in 1901. In 1902 I started at the bottom of the ladder to learn the pottery business working for my father at the Philadelphia City Pottery Company. Enlisted in the National Guard and was elected captain in 1901; manager of the Philadelphia City Pottery Company in 1904. My father died in May, 1906. In 1909 started the present concern manufacturing Yellow, Rockingham, White Lined wares and specialties. I married Miss Ethel Moore of Philadelphia, December 22, 1909.

1902.

F. H. HUNTER, *Sec.*, 281 Park Street, West Roxbury, Mass.

Work for the class book is proceeding steadily. At the time of writing these notes over one hundred and fifty replies had come in and these are being catalogued for statistics, etc., and put in shape for publication. Any classmate who has not sent in his reply should do so at once, as '02 does not take two years to get out a class book and replies must be in very soon to be in season. If blanks have been mislaid a line to the secretary will bring another set.—The place for the Decennial reunion has not yet been determined, but will be duly announced by bulletin. The date is set, June 1-4, so make plans to be on hand.—Since the last REVIEW went to press there has been but one gathering of the class, a bowling party at the Adams Square Alleys, Boston, on the evening of February 2. The bowling was preceded by an informal dinner at the American House Rathskeller. The following men were on hand for part or all of the evening: Belcher, Everett, Galaher, Hall, Hunter, Mahar, Millar, Moore, Pendergast, Joe Philbrick, Pitts, Robinson, Stillings, Walker, "Doc." Williams, and Wood. The honors, both for high average and biggest string, were taken by Wood, with Galaher, second,—Walker Belcher, Millar, Mahar and Philbrick making good showings. The exact scores are omitted for fear of frightening other classes, but the '02 record was never in danger.—A Ladies' Night, the first ever held by the class, is set for March 21 at the Newton Boat Club, Riverside, with dancing, bowling, cards and pool.—On April 5 the class is to meet '05 on the bowling alleys in the first interclass bowling contest ever held.—At the alumni banquet on January 3 at the Hotel Somerset, Boston, the following classmates were present: Ames, Everett, Fisher, Archie Gardner, Hall, Hunter, Manley, Pendergast and Thurston. The presence of Gardner was a pleasant surprise to the others. He arrived in Boston a few hours earlier and reported at the office of the Ambursen Hydraulic Construction Company. "Pop" Coburn, '98, promptly took him in charge and landed him at the Somerset for the banquet. Gardner had just completed the largest reinforced concrete dam in the world at Estacada, Oregon, and is now taking charge of another at St. Fereol, Quebec. His mail address is via his home at Babylon, New York.—"Archie" was in town a few days, and on the Friday following the banquet the following classmates gathered at lunch at the Rathskeller to meet him: Greeley, Robinson, Sears and Hunter.

The following notes are only the most important ones from the mass of data already in for the class book.—Avery has been located in Buffalo, where he is with the New York Central,—mail address 831 Elmwood Avenue.—Bartlett is in Panama designing stations for the railroad.—Belcher is at his home in Winchester, Mass., for

the winter.—Charles Boardman is master mechanic for the Clifton Manufacturing Company at Jamaica Plain, Mass.—Childs has had to give up active work for a time on account of his health. He is doing light work outdoors and is making his home at Lee, Mass.—Hammond is superintendent of construction for the Elliott C. Brown Company on work at Oyster Bay, N. Y.—Paul Hansen is with the Illinois State Water Survey, Urbana, Ill.—Jack Horr is with the Bethlehem Steel Company, South Bethlehem, Pa.—A. A. Jackson's address is 225 North 18th Street, Chicago.—Knight has purchased an estate at San Antonio, Texas, called "Hillcrest Farm," and is developing it as a stock farm. He is continuing his work in rubber manufacturing at Parras, Coahuila, Mexico, where he is associated with the Maderos.—Leathers is at Ida Grove, Iowa.—Putnam's address is 635 Chamber of Commerce Building, Pasadena, Cal.—Arthur Sawyer is at 304 Florence Street, Houghton, Mich.—Wellman's address is 106 Fulton Street, New York.—Wemyss is recovering his health and expects to return to the East from Phoenix, Ariz., in the summer.—Worcester is teaching mathematics at West Point.—Prof. P. R. Whitney is just moving to a new residence designed by himself, on Orchard Avenue, Moylan, Pa.

1903.

F. A. OLMSTEAD, *Sec.*, Oregon City, Ore.

R. H. NUTTER, *Asst. Sec.*, Lynn, Mass.

On Tuesday evening, January 30, there was an informal dinner of the class at the Tech Union. The class was fortunate in having as its guest Frank A. Bourne, '95, who, following the dinner, gave us a most interesting talk on "A Comparison of Streets and Squares, Docks and Water Fronts at Home and Abroad, Noted in Boston Chamber of Commerce Tour." Mr. Bourne's talk, well illustrated by lantern slides, gave us an idea of the opportunities which we have in Boston for improving our streets and squares. He also showed how the tenement house problem is being solved in England and Germany. Mr. Bourne's remarks on Boston Harbor and its tremendous possibilities were especially interesting in view of the steps now being taken toward improving the docks and water fronts here. The dinner was in charge of a committee consisting of Sears, Atwood, and Merrill. The following men attended: Comer, Merrill, Sears, Atwood, Aldrich, Haddock, Bartlett, King, Stiles, Laughlin, Fales, Wing, S. P. Brown and Nutter. Ruxton was unable to get over from Springfield but wrote as follows:

It is with regret that I have to decline the invitation to be present at the informal reunion of "naughty three." Just at present we are busily engaged in construction work on a new railroad in this part of the state that requires all of my time.

It is some time since I have seen any of the '03 boys, but I hope in the near future to have more time to myself and to participate in these affairs with the others. Express my heartiest interest for the goodfellowship of '03.

—The following new addresses have been recieved: Lewis Wehner, care Bucyens Company, Evansville, Ind.—R. C. Tolman, University of Cincinnati, Cincinnati, Ohio.—George E. Sibbett, Hammonton, Cal.—John L. Jones, 914 Roger Place, Cincinnati, Ohio.—Curtis R. Gray, Vulcanized Products Company, Muskegon, Mich.—H. S. Morse has been spending a few days in Boston and after March 15 will be located in Cincinnati.—The class extends its congratulations to Myron H. Clark, who is the proud father of a son, Eugene Whittredge Clark, born December 26, 1911.

Now that the new site for Technology has been selected an opportunity will be given the alumni to repay, in a small degree, what they really owe to the Institute by contributing financially toward the "New Technology." A committee in charge of T. E. Sears is now engaged in perfecting plans that will enable each '03 man to do his share. Our class started making history as soon as it entered the "Stute" and before the year 1903 the class had become famous. Sears and his committee will now give every '03 man a chance to add to this fame.

The following is taken from the *Evening Sun*, Baltimore, Md.:

"Notice came under official seal to Paul G. L. Hilken on last Saturday afternoon of his appointment as Vice-Consul for Sweden at Baltimore, to succeed the late Edward C. Geyer.

Mr. Hilken is junior member of the firm of A. Schumacher & Co., general agents of the North German Lloyd Steamship Company. He is a Baltimore boy, having been born in this city March 24, 1878. His early education was received here, he having been a student at the City College and the Old Zion Church school. Afterward he went to Lehigh University, whence, upon graduation, he took the course in naval architecture and marine engineering at the Massachusetts Institute of Technology, at Boston.

After graduation, Mr. Hilken held positions at Quincy, Mass., and at New London, Conn. Later he came to Baltimore and was engaged with the Maryland Steel Company at Sparrows Point. He was with that company five years, when he became identified with the firm of which he has for the last two years been junior partner.

The Swedish Consulate will be located in the new Hansa Haus, on German and Charles Streets, which is to be built this spring and on which work will begin March 1."

1904.

EVERETT O. HILLER, *Sec.*, United Printing Machinery Co.,
Jamaica Plain, Mass.

ADDISON F. HOLMES, *Asst. Sec.*, 7 Holborn Street, Roxbury, Mass.

The most interesting '04 event since the last issue of the *REVIEW* was a dinner of '04 men in Boston and vicinity on the evening of January 24 at the Boston City Club. Twenty-six men attended and had a very enjoyable time. Ovington was with us and talked on his experiences as an aviator. The others who contributed especially to the entertainment are mentioned in a letter of appreciation from Parker which is quoted below in full.

It is certainly mighty interesting to hear from these fellows in the class who are scattered all over the world and they seem to have the goods on the "Boston stay-at-homes," but I'll bet a good hat that most of them would have been tickled to death to have been at '04's little dinner at the City Club on January 24.

Good spirits were certainly in evidence and it was a lively affair. It might be well for outsiders to realize that Steve formerly bass drummer in the freshman band has developed into an after dinner speaker and that Charlie Haynes held us spellbound while he banged the box and sang a song. These fellows might also like to know that, although Charlie Horner is about forty pounds heavier than he used to be and is getting very bald, he can still stand up in a chair and get the bunch to yelling as though we were all freshmen and he as usual the biggest one of all. To say that "We are happy" was the yell of the evening is of course entirely unnecessary. Dignity was thrown to the winds and no one seemed to appreciate the fact more than "Volts" Ovington, M. I. T. '04, aviator, who we were mighty lucky to have with us.

It might seem that the only member of the Faculty present, Professor Selskar Gunn, would have caused us to maintain a certain amount of dignity, but aside from a few necessary and very apt remarks concerning the new site and the advisability of 1904 starting things toward the fund which is shortly to be raised, he was the same old "Gunnie" and in a most pleasing and delightful manner he told us about some of the scrapes which he and Ovington and "Peacham" Paine got into when they roomed together while at the 'Stute.' As Gunn said, it was unnecessary to introduce Ovington to a bunch of his own classmates and to say that we spent a delightful evening listening to his adventures and experiences would be indeed putting it very mildly. Here was one of '04's own men, eminently successful in a field which few men even dare to enter, a man whose name has echoed far and wide over the world, who combines with his courage and nerve an almost exact knowledge of all the known principles of the art of flying, who simply and modestly told us some of the things he knows about this flying game.

About twenty-five of us as you know had him to ourselves with no reporters present and the only regret is that all 1904 men could not have dropped in and heard him. He is some lecturer nowadays, too, and only last Monday evening addressed a large audience, but this little talk to us was certainly a corker.

You know "Steve" asked "who in thunder awakened the corpse" when he received notice of this meeting and I don't know as I blame him, but this much is sure, when '04 does get together there is something doing for fair. Possibly some of these wanderers on the face of the earth might be induced to contribute more liberally to our notes in the *REVIEW* if they knew about these meetings at home, and the enthusiasm they arouse.

—Phil Sweetser who is married and has established his home in Newton Highlands has lately become connected with an inter-

esting and unique organization developed by a Tech man. At the secretary's request the following letter was written by Sweetser for use in this column:

I can give you very little news that would be of interest to the class except perhaps the fact that I have recently become connected with the engineering department of the Babson Statistical Organization, Wellesley Hills, Mass., which has been developed by Roger W. Babson, a Tech '98 man. As the work of this organization is rather unique in its character, it may be of interest to go into it a little in detail. It gets out reports on business conditions and investments for merchants, bankers and investors. The reports on business conditions are in the form of a map of the country, showing conditions in the different sections, and in the form of a composite plot showing at a glance the condition of business of the country as a whole. This plot, which has been developed by Mr. Babson, is made up of statistics on twelve subjects which have been found to indicate the trend of business. These twelve subjects are Immigration, New Building, Failures, Bank Clearings, Commodity Prices, Surplus Reserves, Foreign Money Rates, Domestic Money Rates, Condition of Leading Crops, Railroad Earnings, Political Factors, and Stock Market Conditions.

The statistics on these subjects are reduced to an index figure and plotted from week to week and form an accurate barometer of business conditions. With the succession of periods of prosperity and depression which this country has passed through, the curve formed by plotting these figures resembles very much the alternating current sine wave of any electrical generator. By means of this plot it is possible to anticipate business conditions, for according to the law of action and reaction which applies in economics as well as in mechanics, the area developed above the line of normal growth should be approximately equal to the area developed below the line. By following this plot from week to week the business man is therefore enabled not only to know accurately the present condition of business, but also to anticipate general business conditions, and to prepare himself for such conditions. It also enables the investor to take advantage of the long swings of the stock market,—that is by buying securities during periods of depression and selling them during periods of prosperity. This plot indicates that at the present time the country is just entering the period of business depression. If any of the fellows are interested to see one of these plots, I would be glad to send them a sample copy. The reports on investments take the form of weekly write-ups and special reports on particular investments and recommendations on commercial paper and all kinds of stocks and bonds. These reports and recommendations are made up from an entirely impartial point of view, for we neither sell nor buy securities of any nature.

You may wonder where the engineering department comes in, in such work as this, but it is just here. Every year there are a large number of bonds which are defaulted, and in the interests of our clients we make an examination and report on the properties which these bonds represent, and determine what the security is back of them, and whether or not the holder should sell them or hold them, or deposit them with some reorganization committee, etc. These investigations include steam roads, public utility propositions, water powers and industrial corporations, so you see my work is in no way monotonous, and in fact grows more interesting every day.

—The following letter written December 19 will be read with interest, from J. R. Sanborn:

. . . I have been here in Jamestown as manager of works of the Art Metal Construction Company since August, 1910. On January 1, I leave here to go to Cincinnati as general manager of manufacturing for the Automatic News Distributing Company. I have found things very pleasant here in Jamestown, and regret that I have to leave. Jerry Sweet, who was with our class for a short time, spent

a few hours here recently. He is with the Holophane Company in Newark, Ohio, devoting most of his time to the development of "train lighting." I understand that he has been very successful in his work. I hear from Bill Eager occasionally. He is treasurer of the Whitman & Barnes Manufacturing Co., with headquarters in Akron, Ohio. They say he is doing great things for that company.

—From Harry H. Needham dated at 25 Burnett Street, East Orange, N. J., January 1, 1912:

. . . I have been in England for the last four years with the exception of three months of 1910 when I was back on a business trip. I managed to see most of the European countries and some of them three or four times. My favorite recreation was mountain climbing in Switzerland but I had no very exciting adventures. I did take a tumble though one winter in the Welsh mountains and had to be carried on a stretcher three miles down the mountain through the snow. I was all right again in a few weeks, however. I found life in England very pleasant as the fellows all stay in sports there as long as they can move around at all and do not quit as soon as they get through school, as many of our fellows do here.

They all live out of doors a great deal and get into some sport nearly every night as in summer it does not get dark until around ten o'clock.

I have been up to Boston a few times since I got back but have been so rushed I have not had a chance yet to look any of the fellows up that are still there. If you are having any '04 dinners there this winter on a Saturday evening you might let me know and I will try to get on. At present I am with the General Electric Company at Harrison, N. J., which is their lamp headquarters and I am representing the British and the French Thompson Houston Companies on engineering affairs.

—The following letter takes us "back to the days that were free from care" and to hair-raising rides on the hood of a bucking automobile. It is from Bernard Blum, 514 Northern Pacific Railway Building.

. . . I have been having a varied time of it for the past five years but with the same company, the Northern Pacific Railway. I have just quit the roadmaster's game and am back in the engineering department in charge of the valuation work on the east end; work being done in connection with the rate cases now pending in the courts. I attended a recent dinner of the Minnesota Technology Club and it was good to be back again in the fold. The only way I have been able to keep in touch with affairs was through the REVIEW. Four years in Montana was a long time in exile. I ran across Cerf several times in Duluth. While in Montana I met Kemper in Butte; he is a haughty landlord. I also saw him in Livingston where he was on a special junket with a lot of Butte boozers—I mean boosters. Give my regards to all down Boston way.

—The secretary has received a short letter from O. D. Fellows, Jr., who is located with the Copper Range Consolidated Company at Redridge, Houghton County, Mich. He tells of very busy days and sends heartiest greetings, though he has been unable to attend any of the past reunions.—William H. Edgecombe has been advanced to the position of bonus supervisor of the eastern lines of the Atchison, Topeka & Santa Fé.—We are interested to hear that Jack Card has successfully made his début as a writer. An interesting article in a recent copy of *Field and Stream* attests this fact.—Gussie Munster is busily engaged in reorganizing the

stores department of the Boston & Maine Railroad now under the control of the New York, New Haven & Hartford system.—Announcements have been received from Frank Howard Davis of the arrival of a Jr. on January 8, and from Julius Hecht of the advent of Kenneth George on January 17, 1912. Congratulations to the fond parents and the welcome of '04 to the new members of society. It will be remembered that Hecht carried off the class baby cup some years ago.—Wedding cards were received in January announcing the marriage of Henry Field to Miss Marguerite White on the 24th of the month. Mr. and Mrs. Field will be at home after March 15, at 1411 Minor Avenue, Seattle, Wash.—We should like information concerning the addresses of the following '04 men: Moses Brown, Jr., Freeman Nelson Bull, Dr. L. A. Hermann, Edwin R. Humphrey, Blaine H. Miller.—We quote from the *Pittsburg Dispatch* as follows:

"The Pittsburg section of the American Chemical Society will hold its regular meeting Thursday evening in room 107, Thaw Hall, University of Pittsburg, when A. D. Smith, general superintendent of the Canfield Oil Company of Coraopolis, will speak on "Petroleum Distillate Testing." Mr. Smith is a graduate of the Massachusetts Institute of Technology and will answer general questions relating to the art of refining crude petroleum. The meetings are open to the public."

The following changes of addresses have been noted: Calvin P. Bascom, Hamilton Hotel, St. Louis, Mo.—W. Brenton Boggs, Douglaston Park, Douglaston, L. I., N. Y.—Henry C. Field, 1411 Minor Avenue, Seattle, Wash.—Joseph A. Keenan, 86 Lafayette Avenue, Brooklyn, N. Y.—Henry F. Keyes, 35 Congress Street, Boston, Mass.—Naval Constructor William McEntee, Bureau Construction and Repair, Navy Department, Washington, D. C.—A. W. Munster, 20 Kemper Street, Wollaston, Mass.—Henry S. Pitts, 427 Lake Avenue, St. Louis, Mo.—B. A. Richardson, 39 East 83d Street, New York, N. Y.—T. A. Sammis, Jr., R. F. D. 2, The Dalles, Ore.—Philip S. Sweetser, care Babson Statistical Organization, Wellesley Hills, Mass.

1905.

GROSVENOR D'W. MARCY, *Sec.*, 246 Summer Street, Boston, Mass.

Wesley C. Gilman was married on February 22 to Miss Bertha Wright Harrington of Rockland, Mass.—R. H. Nesmith and Miss Eliza Chinn Hedges were married November 11, 1911, at Brooklyn, N. Y. Nesmith's address is 516 West Gray Street, Elmira, N. Y.—Jules V. Barnd and Miss Ethel Guernsey were married at Fostoria, Ohio, December 12, 1911. Barnd says he is busy developing the largest marble quarry in the world at Beatty, Nev. His address is Huber Building, Marion, Ohio.—The engagement is announced of Theodore P. Moorehead and Miss Geraldine

Atkins. Moorhead's address is 119 Pender Street, Vancouver, B. C.—William S. Gouinlock, Jr., was added to the roll of 1905 babies on September 15, 1911.—W. S. Richmond announces the birth of Natalie Smith Richmond at Detroit, October 18, 1911.—Ralph E. Tarbett, 14 Beacon Street, Boston, reports the arrival of Ralph Lawrence Tarbett on November 19, 1911.—C. H. Clapp had a son born January 28, named Daniel Brennan Clapp.—“Doc” Lewis announces the birth of Warren K., Jr., on February 2.—William G. Ball, Jr., was born February 12.—Gorham Crosby writes:

The 1905 men around New York City had a meeting at the New York Technology Club on February 10. The pool tables, etc., were turned over to them in the afternoon and evening and great sport was had at an open game of pool before dinner. Poole was the star in scratching balls faster than all the rest could put them in the pockets. Sixteen '05 men showed up for dinner and spent a great evening. A special dinner was served, the fellows present being, Blair, Crosby, Flynn, Fouhy, Gunn, Hart, Lines, Poole, Richards, Rhodes, Saville, Schmeisser, Shapira, Sullivan, Whiting and Wilcox. Crosby read the '05 news from the latest Tech REVIEWS. Saville told us about the new edition of the undergraduates, book about Tech. Flynn told us some of his hair raising escapades in Panama. Others swapped yarns and with intervening cheers it was certainly a jolly dinner. A census was taken and out of the sixteen men present eight are married, and four admitted they were fathers.

Ten courses were represented. After dinner all gathered round with Rhodes at the piano and sang Tech songs with vim and vigor. While the harmony of '05 is well known no one suspected there was so much melody in the men. Later in the evening some of the men returned to the pool tables and others to the card tables and library. Most of the fellows stayed until a late hour, all agreeing it was a bang-up time and another '05 dinner is planned for about the middle of March.

—George I. Rhodes read a paper entitled “A Method Studying of Power Costs with Reference to the Load Curve and Overload Economics,” before the American Institute of Electrical Engineers at New York on February 9.—The annual spring dinner was held March 1 at Bova's Café. Twenty-seven men were present, among them several who had not been seen for some time, notably Howard M. Edmunds, who is with the London office of the B. F. Sturtevant Company, and was attending a convention of representatives of that company. After the dinner the party adjourned to the Adams Square Bowling Alleys, where an entire floor was reserved. Many of the fellows had not bowled before, and had as good a time and made as much fun as the high-rollers. For strategic reasons the phenomenal scores made will not be given out, as we have accepted a challenge from the class of 1902 for a three-team match, to be rolled April 5. Training table has been set up at the American House, Fridays at 12.30.—The appointment of James P. Barnes as chief engineer of the Andrews-Vanderbilt System, comprising the Syracuse Rapid Transit Company, Utica & Mohawk Valley Railway Co., and the Oneida Railway Company became effective March 1. This is the road on which Barnes and F. J. Schwartz ran their theses, and with which

Barnes has been connected since graduation. His predecessor, W. J. Harvie, was last year president of the American Electric Railway Engineering Association, and is now to be railway manager of the operating department of the J. G. White Company. Jimmie writes "This is a bully opportunity to stub my toe or make good, and as my toes are sensitive, I'm figuring on sitting close to the job for some time to come."—Alden P. Gilson has left the Lanston Monotype Machine Company, and is with the F. H. Gilson Printing Company, 58 Stanhope Street, Boston.—Zeke Coffin is now with the Department of Improved Risks of the New England Insurance Exchange, 141 Milk Street, Boston.—George Jones says he saw Ned Jewett in Chicago in January, and that Ned was gaining much weight, in spite of life in Texas.—Henry F. Lewis has gone into the real estate and loan business in Winnipeg, and is not married or even engaged, yet.—Ros Davis reports looking up Father Caine (Sid) S. B., S.M., D.D. He has been for a year and a half a priest at St. Luke's Chapel of Trinity Parish, New York, located down town in a tenement district. His particular work has been largely with the children, and he is very enthusiastic over it. Although located on Hudson Street, he says he finds little use for his naval architecture.—P. G. Darling is living with Mathesius, '06, and Field, '97, all working for the du Pont Company, at Wilmington, Del.—It is reported that Charles R. Pritchard is about to erect a large house at the seashore at Beverly.—R. C. Cutting says, "I am the sole representative of M. I. T. within a hundred miles of Hogsett, W. Va. The sole representative, however, has occasional meetings with himself, at which Tech Songs are sung, accompanied by Mrs. Cutting at the piano."—H. M. Wilcox has sold out the insulating joint business he has been developing and gone with Miller, Franklin & Co., efficiency engineers, at Whitehall Building, New York. He says he is now prepared to "efficiate" at almost any kind of function.—Harry Wentworth writes on a brand new "Consulting Engineer" letter-head that he is still with the Huff Electrostatic Separator Company, but is also doing some outside work. On one of his numerous Western trips he visited Cobalt and Sudbury, Ont., and then went to Hancock, Mich., where he met Fred Abbott and his wife.—Wentworth read a paper on "Electrostatic Concentration and Separation of Ores" before the annual meeting of the American Institute of Mining Engineers, in February at New York.—P. J. Sullivan, 153 South Grove Street, East Orange, N. J., writes that he had such a rattling good time at the '05 dinner in New York, that he was sore for those he had missed by not being regularly enrolled under the good old '05 banner, and paid up all his back dues. For the last five years he has been chief chemist for Lister's Agricultural Chemical Works, of Newark, N. J., and is still single, although it is not his fault.—George S. Stokely writes from Newport, Tenn., that he is glad to hear of the success the boys are

meeting with, and has to work so hard to keep up that he hardly has time to answer circular letters from the secretary. He "quituated" in '04, being at Tech one year after graduating at the University of Tennessee. He and his brothers own farms and operate canning factories as Stokely Brothers & Co., and have the largest output of anyone in that line in the South.—'Gene Burton wrote on March 29: "Things here in Mexico have been going on at such a rate that one is kept busy on war news alone, preparing for the things that may happen. Since I came down here, a little over a month ago, I have had the most peaceful time I have experienced in a year. Of course, there are almost daily rumors of bandits round about, and promises of all sorts of punishments for Americans in general, but as for actual trouble, there hasn't been any. Please note that my address is now Superintendent, Asientos Vint, A. S. & R. Co., Asientos, Agu., Mexico."

A letter sent out to '05 men not members of the Alumni Association bore fruit in that the following have made application for membership: Ralph LeR. Segar, Whitall Electric Company, Westerly, R. I.—Bernard Beerman, attorney at law, 27 School Street, Boston.—Albert S. Prince, who is now an optician at 108 West 4th Street, Cincinnati, Ohio.—William C. Rinearson, Oakdale, Tenn. Rinearson is resident engineer of the C. N. O. & T. P. Ry.—George S. Stokely, address given above.—Fred J. Wilkie-meyer, M.D., who is a physician and surgeon, with an office at 407 Equitable Building, Muskogee, Okla.—Tom W. Osgood, P. O. Box 568, Medford, Ore. Osgood is a member of the firm of Osgood & Cummings, civil engineers, and is engaged to Miss Mary Benton of San Diego, Cal.—Every man who was ever connected with the class of 1905 ought to be a member of the Alumni Association, read the REVIEW regularly, and send in all news coming his way. In this way only can we keep in touch with all the fellows. Whenever you meet an '05 man ask him if he belongs to the Alumni Association, and if not, show him the folly of his way.

New addresses noted on replies to the notice recently sent out are as follows:—C. W. Babcock, 201 Devonshire Street, room 710, Boston, Mass.—Leonard W. Cronkhite, 20 Linden Street, Arlington Heights, Mass.—Joseph Daniels, University Station, Seattle, Wash.—Ralph B. Fay, 225 Third Street, Elyria, Ohio.—Laurence U. Fuller, 53 Atlantic Terrace, Lynn, Mass.—A. C. Gilbert, 140 Chestnut Street, Cambridge, Mass.—R. E. Hadley, 266 Lowell Street, Lawrence, Mass.—W. N. MacBriar, 930 Henry Building, Seattle, Wash.—Carlton H. Manter, 74 Batavia Street, Boston, Mass.—Seymour M. Rivitz, 23 Homestead Street, Roxbury, Mass.—W. L. Spaulding, 50 Allen Street, Buffalo, N. Y.—Samuel Shapira, 53 West 113th Street, New York City.—E. C. Smith, 770 Keele Street, Toronto, Ont.—K. Whitman, Jr., 523 West 122d Street, New York City.—Horatio Whiting, 30 Vesey

Street, New York City.—Grafton Perkins has left the Potter Drug & Chemical Company to take the position of advertising manager of the Resinol Chemical Company, 517 West Lombard Street, Baltimore.

ROGER P. STEBBINS

Word came to the secretary just before going to press, of the death of our classmate, Roger P. Stebbins. Stebbins was taken sick with consumption a year and a half ago and went to Saranac Lake, N. Y. Feeling that he was cured, he left there last summer and returned to work, but had a relapse and had to go back. He died at Saranac Lake on March 19. A note expressing the sympathy of his classmates has been sent to his family, who live at 151 Corey Street, West Roxbury, Mass. We take the following from the *Boston Globe*:

“Mr. Stebbins was the son of the late Solon B. and Ellen B. Stebbins and was born in Roslindale Sept. 30, 1884. He graduated from the West Roxbury High School in 1901 and from the Massachusetts Institute of Technology, department of naval architecture, in 1905. Soon afterward he entered the employ of the Electric Boat Company at Quincy and remained with this concern until 1911. Mr. Stebbins was a member of several leading technical societies, including the American Society of Naval Engineers, the Society of Naval Architects and Marine Engineers and the American Institute of Electric Engineers.”

1907.

BRYANT NICHOLS, *Sec.*, 143 Garland Street, Everett, Mass.
HAROLD S. WONSON, *Asst. Sec.*, 149 East Main Street, Gloucester, Mass.

I. A Message from the Secretaries

The next issue of the REVIEW which contains class notes will set forth an account of the greatest event which will have happened at that time in the history of our class. It is needless to say that we refer to the *Great 1907 Five-Year Celebration* at the farm of Bursar Rand at Bellingham, Mass., on June 14, 15, 16, and 17. Whether that coming story will record a tremendously successful reunion, or a gathering of only moderate enthusiasm depends very largely on you, the '07 reader of this present message. Your committee, consisting of Macomber, Wonson, Lawrence Allen, Robbins, and Nichols, are now doing and will continue to do from now until June 18, 1912, all that they are capable of doing toward making this a splendidly arranged and carried-out affair, from the biggest problem to be solved and handled to the smallest detail. One meeting of this committee was held on February 17 and one on March 16 and from now on the meetings will be frequent.

The entire commissary end of the affair is in direct charge of Wonson. Upon the successful working out of all the smallest parts of this portion of the plan depends largely the comfort and happiness of the men who attend the celebration. The securing of tents, cots, bedding, food, a chef and assistants, a cook-stove, fuel, dishes, tables, chairs, are some of the larger matters which come under this heading. Lawrence Allen is directly responsible for the entertainment during the four days of our sojourn at Bellingham. The committee expects to have every minute, from the time the first man arrives at "the farm" until the time the last man leaves the town, planned for, providing for fair weather and rain, daytime and evening, out of doors and under cover. There will be no slow moments with "nothing doing" at the '07 junket, be assured of that. The committee will welcome any suggestions you have to offer along this line, or any other. Nichols is expected to keep this coming reunion constantly before you, and he will do his best. The other members of the committee are not silent partners—not at all, but are helping each of the other three. We are practically sure of at least fifty men being on hand for the fun in June. We wish there might be fifty more. There is room for all who will come. If you have decided not to come, think it over again, and make some sacrifice, if necessary, to be in the midst of your classmates in June. You will not regret it. And if you have already written us that you expect to be here, put it down in your engagement book as an absolutely settled date that nothing can change.

II. *Various Items of News and Interest*

A. H. Abbott is now at 26 Jay Street, Schenectady, N. Y.—A brief note received from Charlie Allen in January states that he has been very busy in the shoe business this season. Also that his little daughter, Barbara, born July 31, 1911, has been well and is growing "in wisdom and stature."—J. P. Alvey, Jr., has changed his address slightly, and is now at 105 South La Salle Street, Chicago.—A letter was received in early March from C. A. Bettington, who took a special course in mechanical engineering during our second and third years. This is the first time he has ever written and we welcome his message. He gives his occupation as "inventor, consulting engineer, and lieutenant reserve of officers (late Royal Artillery)." In his letter, he speaks of his "flying" near London, so we judge he is also an aviator. His address is Junior United Service Club, London, S. W., England.—George Bryant is the father of a daughter, Dorothy Idella. We do not know the birthday.—A. L. Burwell writes from Huntington Park, Los Angeles, Cal.:

Came West about the first of last October to take charge of the beam house and tannery of Kaufman, Davidson, Semmel, Inc., hide dealers, wool pullers

and tannery. We are specializing on sheep and goat leathers for glove purposes. Last month at the monthly luncheon of the Southern California Tech. Club, I met among others Myers and Murfey, '08, and L. A. Parker, '06, whom the fellows will remember as the leaders of the Mandolin Club Hope I may get back in June.

—Sam Coupal is manager and treasurer of a mining company, with address San Geronimo, Oaxaca, Mexico. He expects to be near Boston for six months beginning about July 1, 1912.—George A. Crane is with Thompson-Starrett Company, Fisher Building, Chicago.—In January O. G. Fales was in Rio de Janeiro, Brazil, and should be addressed care of the United States Consul there.—Frank W. Friend, 15 Washington Street, Duxbury, Mass.—The secretary received in January a letter from Stuart G. Godfrey, whom many will remember as quarterback on our class football team. Godfrey was a long time in writing, but as he acknowledges himself, he could not resist the persistence of the secretaries any longer. We certainly hope to hear from him frequently now. He is a lieutenant in the Corps of engineers, U. S. A., stationed at Fort Leavenworth, Kans. He writes:

I am mighty well content with my work in the corps of engineers, and like very well this station, where I am getting the military end of my profession. Recently I helped to make out the examination papers for civilian candidates for commission in the corps I expect my address after next October will be Manila, P. I. Better enter my permanent address as care of Adjutant-General, Washington, D. C.

—A. E. Hartwell, 1209 Webster Avenue, Houston, Texas.—Hud Hastings is in Portland, Ore., at 526 20th Street.—J. P. Hinckley writes that he expects to be abroad at the time of the reunion. We are sorry that he will not be with us, but glad for his opportunity for travel. E. F. Kelly is with the Edison Company, 65 Duane Street, New York City.—Bob Keyes is New York sales manager for the concern of which John Frank is vice-president, the Ilg. Electric Ventilating Company. Bob's address is 1106 Park Row Building, New York.—A short letter from Kolatschevsky shows that he is with N. C. Heisler & Cie., Griasmaia 12, St. Petersburg, Russia. He is engaged in telephone work, and was in December supervising the extension of the St. Petersburg exchange, and the construction of two smaller exchanges. His firm is allied to the Western Electric Company.—“Stud” Leavell is in Salt Lake City, Utah, address Newhouse Building.—Henry M. Lewis, Jr., is at Fifth East Hotel, Salt Lake City.—Sam Marx is now at 7 West Madison Street, Chicago.—Frank S. MacGregor has gone with the American Zinc Ore Separating Company, 1218 Foster Building, Denver, Colo.—Stuart R. Miller is now purchasing agent for the Samuel C. Tatum Company of Cincinnati, makers of loose leaf goods and office specialties.—N. A. Middleton writes on a mighty neat looking letter-head, “N. A. Middleton & Co.,

Engineers and General Contractors, 515 Continental Building, Baltimore, Md."—Howard J. Morton, 76 South Union Street, Grand Rapids, Mich.—"Bill" Otis was married on January 27 last to Miss Edith L. Osten of New York. Hearty congratulations, Bill! He expects to come to the June celebration, however. That is true class loyalty.—Allen Pope, 72 Ellicott Street, Buffalo, N. Y.—"Kelley" Richards is engaged to Miss Margaret H. Lange of Manchester, N. H. 683 Atlantic Avenue, Boston, Mass., will reach "Kelley."—E. C. Richardson, 17 Roy Lane, Montreal, Can.—Don Robbins is living at the Y. M. C. A. Building, Manchester, N. H., the W. H. McElwain Company box factory of which he is superintendent, having been moved to that city.—Roswell E. Sampson is at Pullman, Washington (Box 187).—Congratulations to Mr. and Mrs. T. L. Smith upon the birth of a son, David Gage Smith, on February 18, 1912.—Winsor Soule is in Santa Barbara, Cal., until May 1, at which time he will come to Boston, and later attend the '07 reunion.—On February 22, 1912, R. K. Taylor was married to Miss Lillian K. Hutchinson of Jamaica Plain, Mass. Their address is 31 Alveston Street, Jamaica Plain.—Bob Thayer's name appears on the letter-head of *The American Engineer* as associate editor. *The Railway Age Gazette* recently purchased this other publication.—C. V. Turner, 1021 4th Avenue, S. E., Minneapolis, Minn.—R. G. Woodbridge, 2418 18th Street, Wilmington, Del.—Adolph Zuest, 215 Shillita Street, Cincinnati, Ohio.

A Parting Word:—

REMEMBER THE FIVE-YEAR REUNION.

1908.

RUDOLPH B. WEILER, *Sec.*, Care The Sharples Separator Company, West Chester, Pa.

CHARLES W. WHITMORE, *Asst. Sec.*, 1870 Beacon St., Brookline, Mass.

I. On the part of the Secretary

The twelfth regular bi-monthly dinner was held at the City Club, January 8 at 6.30 p. m. The following were present,—A. B. Appleton, W. E. Barton, B. W. Cary, C. W. Clark, A. M. Cook, F. A. Cole, P. A. Esten, L. B. Ellis, H. T. Gerrish, A. W. Heath, O. S. Lyon, S. C. Lyon, B. S. Leslie, E. R. Smith, C. W. Whitmore, Conrad Youngerman—sixteen in all. As twenty-seven signified their intention of being present, twenty-four were guaranteed to the club, consequently the class went in the hole for \$8. This is the third time that this sort of thing has happened, and it certainly is not fair to the class for any of the members to state they will come and then stay away, even if the night is a bit windy. It may be necessary in the future to assess members the price of

the dinner who do this and then fail to notify the assistant secretary of their inability to attend. It is impossible anywhere to arrange for a dinner without making a guarantee as to the number attending. At the same time provision will always be made for any reasonable increase over the guaranteed number. The following business was transacted: 1. The resignation of J. T. Tobin as secretary was read, stating that for the past few years the nature of his business has been such as to prevent his keeping in touch with class affairs and there was no indication that there would be any change in the immediate future. Resignation accepted. 2. Rudolph B. Weiler was elected secretary to fill the vacancy. 3. Charles W. Whitmore was elected assistant secretary to fill the vacancy thus formed. 4. H. T. Gerrish to be reimbursed \$8 for the deficiency noted above. 5. The assistant secretary was instructed to send letter of condolence to the parents of Sidney A. Malcom, '08, who died on January 3. Notice of this appeared in the last issue. The class sent a suitable floral tribute, through A. M. Cook, and the following members of '08 represented the class at the funeral: A. M. Cook, C. W. Clark, G. A. Clatur, C. N. Manning. Four of the present assistants at the Institute acted as pall bearers.—Announcement was made of the birth of a daughter to Mr. and Mrs. Conrad Youngerman on November 4 and of twin girls to Mr. and Mrs. Fred Dolke on November 19. The meeting then adjourned to the bowling alley where the married men bowled the single men three strings. Result,—three victories for the married men.—At the annual banquet on January 3 seven '08 men were present as follows: C. H. Boylston, P. A. Esten, "Pop" Gerrish, B. S. Leslie, C. S. Lyon, F. Schneider and A. C. Winch.—Mr. and Mrs. S. L. Davidson announce the arrival of S. L. Davidson, 3d, on January 16, 1912.—Mr. and Mrs. Joseph G. Reid announce the arrival of Joseph G. Reid, Jr., in January.—"Ed" Smith also announces the arrival of a son on December 23, 1911.—Mr. and Mrs. A. F. Bremer announce the arrival of Elwen F. Bremer on April 16, 1911.

II. *Matrimonial*

W. A. Stocking was married on Saturday, October 7, 1911, to Miss Frances Y. Stowell at Cleveland, Ohio.—C. D. Putnam was married on February 17, to Miss Ethel Fanning Riley at East Greenwich, R. I. At home after June 1 at 69 Barnes Street, Providence, R. I.—E. J. Beede was married on Wednesday, April 10 to Miss Marguerite S. Bennett at Worcester, Mass. At home after June 15 at 123 School St., Belmont, Mass.

III. *Letters*

We are in receipt of the following from J. T. Tobin under date of January 7, 1912, from Pine Beach, Va.:

Strange for the Sunny South isn't it, but we actually had a fine fall of snow here last night.

Personally, I am still on the road. If anything, it is practically impossible for me to locate myself positively 24 hours ahead. I have been down here at Pine Beach looking after a Car-Thawing Plant and a piece of new grading for the last couple of weeks but leave about Wednesday for parts unknown. The car-thawing plant is quite an innovation. You see the Virginian uses a patent electric dumper, which first drops big clamps across the top of a steel car which is standing on a platform and then tips the car, platform and all, over far enough to dump the coal into the pier conveyor cars, which are on a lower level. This worked finely until the winter when the coal froze in the cars and refused to dump out. Instead of dumping a 50-ton car every two minutes, it takes from half to three quarters of an hour to get a car clear. It is hoped to remedy this with the thawing plant which is practically a long oven, having steam coils on the floor and sides. The thawing plant is long enough to hold three cars, each car starting in six minutes, being pushed ahead as the second and third cars enter and out by the fourth car behind it, thus advancing a length in the plant every two minutes until run out on to the dumper. As the coal storage yard is a gravity one, each car has a rider who does the breaking. As it was necessary for this man to ride his car through the thawing plant and in order not to cook him alive the roof had to be left off. So you see, there were quite a few problems to handle. Whether the famous West Virginia frosts can be overcome in six minutes is the question which will be answered next week.

In connection with this plant, I had to unload and install a 50-horse-power boiler and incidentally build the foundation. In fact, lately I have been a sort of engineering foreman, and have had some varied experiences. I came to this job from a little town called Adsit, Va., which equals one store plus four or five houses. Here I spent two weeks doing a grading job that a contractor fell down on. I had every man, boy and team in the neighborhood working on the job, and at night we'd all sit around the stove in the store and tell lies about deer hunting till about 8.30 and then hit the hay. I lived up above the store and boarded there. The folks never had breakfast till 8.30 and it seemed funny to get up and work one and one-half hours before breakfast. It was some cold. Shaving, of course, was out of the question; but I only missed washing my face one day.

SIDNEY A. MALCOM

By the death of Sidney A. Malcom the class lost one of its most popular members. Even though he was not in the best of health during the latter part of his course at the Institute, he always had a smile and pleasant word for all. He will be best remembered because of his work in connection with the Tech shows, his first appearance being as Fred Wilmerdine in *Over the Garden Wall*. The next year he had the title rôle in his own play *That Pill Grim*. His last part was Katiamori in the *Queen of the Cannibal Isles* which was, without a doubt, his best piece of work. In the class room he was a hard worker and his interest in Technology affairs was of the deepest. Those who knew him intimately will miss him greatly at future Technology gatherings.

A. M. C.

CONRAD YOUNGERMAN

An extremely unfortunate and very sad affair was the death of Conrad Youngerman on February 24. He was crossing the tracks of the New York, New Haven & Hartford Railroad at

Field's Corner, on the morning in question, when he was struck by an inbound train, and thrown a considerable distance. Death was almost instantaneous. The class was represented at the funeral by Dolke, Clapp and E. R. Smith who were at his wedding, and by R. J. Batcheler, acting as pall-bearers. An appropriate floral tribute was sent. The sympathy of all will go out to his bereaved wife with her four-months'-old daughter. At class gatherings he was one of our most enthusiastic and regular attendants and his loss will be deeply felt.

IV. *Addresses*

Wilfred E. Booth, 810 Chapel Street, New Haven, Conn.—J. C. Childs, 102 North Main Street, Piqua, Ohio.—W. Fred Dolke, care E. S. P. Graham, 26 Beacon Street, Boston, Mass.—Arthur S. Douglas, 164 Harvard Street, Brookline, Mass.—K. R. Kennison, care J. R. Freeman, Grosvenor Building, Providence, R. I.—A. T. Kolatschewsky, care N. C. Heisler & Cie, St. Petersburg, Russia.—John H. Locke, 4503 McPherson Street, St. Louis, Mo.—George C. Mason, 384 Ontario Street, Chicago, Ill.—J. G. Reid, Warren, Ark.—George Schobinger, 10831 Armia, Morgan Park, Ill.—L. H. Sutton, 1923 Clifton Street, N. W., Washington, D. C.,—Ching Yu Wen, care M. Kaimoh Wu, 194 Bubbling Well Road, Shanghai, China.

V. *On the part of the Assistant Secretary*

The fourth annual class dinner was held on Tuesday evening, March 12, 1912, at the Boston City Club and proved to be an altogether enjoyable and enthusiastic affair. The fellows sat down at the festive board at 7.15 and proceeded to do justice to the feed, the only interruption being a few songs which were let loose between the courses. Our invited guests were Doctor MacLaurin, who much to our disappointment was unable to attend, and Mr. James R. Rollins, president of the Alumni Association. In a very interesting speech, Mr. Rollins, told of some of the conditions at the Institute, when he was a student and compared them with those of the present day and also with the New Technology to be. He also told us about some of the plans for the new Institute and its buildings. These plans when carried out and Tech is finally established across the river, will make the M. I. T. buildings, without any exception, the finest of their kind in the world. The business of the class was next taken up and to start things right the assistant secretary read a telegram from Secretary Weiler announcing the birth of R. B. Weiler, Jr. By a unanimous vote the assistant secretary was instructed to send congratulations to Mr. and Mrs. Weiler. After the usual class business had been carried out the assistant secretary gave a short outline of the campaign to raise money from the alumni for the New Technology. Mr.

Herbert Gerrish has been appointed by the Alumni Association chairman of the class committee on the Campaign Fund. Mr. Gerrish having been called out of town was not able to be present and announce the names of the fellows who are to serve on this committee with him. The rest of the committee consists of Burton W. Cary, Leslie Ellis and Charles W. Whitmore. Our famous E. F. Orchard next favored us with a solo of one of the old Tech Show songs and his ringing bass brought us back to old times. The last of the evening was given over to Mr. Perry a former Dartmouth man who, entertained with sleight-of-hand and card tricks. We closed with more songs and cheering and then the fellows who did not have trains to catch adjourned to a near-by bowling alley. Needless to say the married men's team captained by "Whit" defeated the single men's team headed by Burt Cary.

NOTE.—The assistant secretary wishes to state that there are registered about 180 men affiliated with the class of 1908 residing in Boston or vicinity, and that return-postal card notices are sent to each of the above before each bi-monthly dinner. Only about 25 per cent. of this number condescend to sign and return these postals. Notice is hereby given that no more notices will be sent to those members who have not sent in a return-postal card for three consecutive dinners.

Many thanks are due the pianist, Mr. R. S. Whitmore, who made a special trip from Providence in order to favor us. The names of those present are as follows: W. E. Booth, R. E. Manning, C. W. Morrison, O. S. Lyon, Langdon Coffin, B. W. Cary, A. O. Christensen, A. R. Hunter, W. F. Dolke, R. J. Batchelder, A. B. Appleton, Fred Joy, Jr., Sherwood Hall, R. C. Collins, E. F. Orchard, J. W. Wattles, A. A. Longley, L. H. Allen, F. A. Cole, B. S. Leslie, L. B. Ellis, G. M. Belcher, A. W. Heath, E. J. Scott, F. T. Towle, C. W. Whitmore.

1909.

CARL W. GRAM, *Sec.*, care Walter Baker & Co., Ltd., Milton, Mass.

It has been very gratifying to the secretary during the last month to note the increased number of letters containing both news and dues. As a direct result of the class letter sent out on February 5, a considerable portion of the class has shown a marked willingness to "come up," and really lamented the fact that they had not been notified earlier of their carelessness. The secretary is only too glad to shoulder the blame, but solemnly promises never to give you another chance to forget to "wind up" at least once a year. Those from whom we have not as yet received a reply we hope shortly to favor with another heart-rending appeal,—a little more concise, in the shape of a reminder. Do help us economize and send us your check right now so we won't have to waste

all those two centses. The results of the revival are as follows: We received entirely new subscriptions for three years back dues from nineteen fellows of whom we had practically heard nothing since graduation (or before, in the case of specials), and whom we were almost ready to cancel as beyond recall. A large percentage of these were fellows who were with us only a portion of the years 1905-09, and their interest is the more creditable, but it is our hope to give you more than your money's worth through these columns alone. Of the regulars and those partially paid up, we received thirty-three subscriptions making a total of fifty-two subscribers thus far. Of the "old stand-bys" who have come forward regularly each year, and those who have partially paid up, we have yet to hear from seventy-four regarding their 1912 dues. We are not worrying about these, but do let us mark *you* on the books "Paid to Date." One rather surprising feature of the returns is that those who were most prominent in student activities, class, and course affairs are usually just the ones who are always way behind in alumni affairs. Two fellows even wanted to know if we objected to have them pay in advance, and sent us checks for all back dues and enough more to carry them through 1915. What do you know about that? Well here's the collection of dope:

We feel sure many fellows were in the same position as Tom Black who writes from Vulture Mines Company, Wickenburg, Ariz.:

It seems that I am farther behind in my dues than I thought. I had an idea that I paid my 1910 dues but it seems not, so I enclose a check for three years with enough to cover the exchange. At the same time I want to compliment you on the letter you got up. Something to attract one's attention is much surer of results than a simple notice. As there is no news to pass on, I shall have to confine myself to sending the money.

—From Bullens under the letter-head of Schuylkill Engineering Company, Reading, Pa., P. O. Box 569, we have the following:

In future, if you don't get my check within a reasonable length of time, please remind me, as I am most willing to help with my "little," *if I can remember it*. (Many thanks from A. L. S. and C. W. G.) . . . I would suggest that you two go into the watch-making business, as you seem to have some pretty good ideas on the subject. In that case I suppose the others would have to "watch" out, would they not? You might pass the word along that I'm still with the Parish Manufacturing Company as metallurgical engineer, and have also taken up the above letter head for some consulting work and some other work on the side. My engagement to Miss May M. Gregory of Reading, Pa., was announced last month. I published an article in the *Iron Age* last month on the "Brinell Test as Applied to Automobile Steel," and will have another this coming month on "The Mechanism of the Formation of Troostite" in the *Metallurgical and Chemical Engineering Magazine*.

—Howard Congdon writes:

I have recently accepted a position in Providence and expect to leave New York in a few days. . . . My new address will be 272 Dudley Street, Providence, R. I.

—Ernest Curley, for whom we advertised in the last number, has been located in Lewiston, Me., where he is director of the Manual Training School.—J. C. Dort who is in the Department of Interior, U. S. Geological Survey, Salt Lake City, Utah, writes

. . . made a flying trip to Boston and the East at Christmas time, but was unable to see many of the fellows. . . . I haven't any news to offer; I've met a few Tech men out in this country, but they seem rather few and far between. I should like to announce my engagement to Miss Sara R. White of Steelton, Pa.

—Congratulations, Dort, and I may say for the benefit of some others that we consider an "engagement" very much in the line of news. So come on, boys—out with it.—F. R. Faulkner writes from Beaverdell, B. C.:

What do we care for expenses—here's your dollar. Guess I am one of the faithful sixty-three. Some class to that circular. . . . I am still with the Kettle Valley Railway as resident engineer. I have learned how a railroad grade should *not* be built and most of my time is spent trying to get the contractors to do it half way decent. Was in Vancouver for Christmas—my first glimpse of civilization for a year. Probably won't see it again for another year.

—Address is changed to 350 8th Avenue, West, Vancouver, B. C.—We have just a line from George Gray who is still in Olmsted, Provo, Utah.—Healy says: "Better late than never. Same old job; chemist for Hartford Rubber Works Company."—Ralph E. Irwin writes that his present address is State Department of Health, Harrisburg, Pa., where he is assistant engineer.—Allen Jones, Jr., is superintendent of the Palmetto Cotton Mills, Columbia, S. C.—Fritz Kellogg's address is now 62 Greenough Street, Brookline, Mass.—A. C. Judd is still with the American Huhn Metallic Packing Company, 410 East 32d Street, New York.—Lynn Loomis writes: "Don't you think that watch of ours needs *oiling* once in a while? A dinner might help to make it run smoother." That's a good kick Lynn, and we sure ought to have a dinner, to at least keep the local fellows together. Let's have more kicks, then we will have more dinners, and incidentally more news and dues.—When the class does not show interest enough to even write an occasional postcard, the secretary does not feel much like wasting evening after evening on work which at best is mighty little appreciated, but the many encouraging replies, checks and thank-yous for getting them into line again, that have been coming in, have put new life into the secretary (as well as the treasury).—The secretary received from Sam McCain a card written on a train going to Key West, and a few days later, from Gainesville, Fla., a letter in part as follows:—

I received the class letter some time ago after it had been forwarded to me to two or three different places. I have been on a combination business and pleasure trip down through this section for the last three weeks and haven't stopped very long at any one place. My trip so far has been principally pleasure but the other side of it has started now and I have about four weeks of strenuous hustling

ahead of me. I have been decidedly careless in informing the class of my doings. There hasn't been anything particular to write about and so I have just neglected writing at all. For a year after I left Tech I worked for the Pennsylvania Railroad in Pittsburgh, but when I saw fellows there working for \$90 or \$100 a month who had been with the company for years, mighty bright fellows, too, I thought 'This is no place for me.' I took a trip out through the west then spending several months there and even going as far north as Alaska. I decided, though, that the East looked better to me than the West and came back to Dayton, Ohio, where my father and brother were engaged in the real estate business, so it came about rather naturally for me to drop engineering and go into the real estate business. Things have been running along pretty well since then. I haven't made a fortune by any means but I like this line of work and it surely has the Pennsylvania Railroad beat a mile as far as furnishing spending money is concerned. Also it gives a fellow all the opportunities he wants to use his head, a few more than he wants sometimes. I expect to be back in Dayton again in about a month and shall probably be located there permanently. I like it there. It is a live, hustling town with plenty doing in the line of entertainment after a fellow gets acquainted. Incidentally there are some mighty nice people there and one in particular has got me or I have got her, I don't know which. At any rate we are due to be married some time next June. I guess this is about all the news. I haven't a check book with me but I am enclosing a couple of dollars which I wish you would please give to Art Shaw with my compliments. I haven't heard anything about his getting married. What is wrong with him? I thought he had it pretty bad when we were at school?

—Sam's address is 432 Arcade Building, Dayton, Ohio.—Here is the answer to Sam's questions, in a letter from our worthy treasurer. Art says:

I think I have 'stayed' on a good while—for one at whom Jim Finnie shook the finger of fate on class day—but at last I have jumped off, and am glad to announce for the benefit of curious and inquiring classmates that Betty is wearing my "preliminary shackle."

—Well! well! who would have thunk it? "Betty" is Miss Helen E. Young of Clinton, Mass.—Speaking about "shackles," the secretary received an announcement of the marriage of Miss Ruth Allison Rogers to C. B. Fletcher on Wednesday, January 3, at Indianapolis.—Charles R. Main is now with the Stone & Webster Construction Co. at Fresno, Cal.—T. C. Merriman's address is Box 191, Waterbury, Conn. "Merry" writes:

Here's a turn that ought to wind up our watch about one cog. Your letter of February 5 . . . ought to meet encouraging response from every '09 man it reached. There is little news that I can add to the budget unless it be to say that the American Brass Company have moved their metallurgical and chemical department to Waterbury from Torrington, taking five Tech men along with it. They built us a new laboratory building and the change is for the better in all respects. And it might interest some of my '09 friends to know that Miss Louise Wadhams, Mt. Holyoke, '10, has promised to let me join the ranks of the Benedicts some time before next Christmas.

—Jack Moses writes in part:

I am still selling for the Hart Mfg. Co., and making a living. Expect to go to Europe for them in the early part of the summer. No, not married, but am taking bids. If I did not pay last year's dues, please let me know, as I am looking around for good investments now. Regards to all the boys.

—Address 3821 Lake Avenue, Chicago.—T. C. Montgomery is secretary and treasurer of the Montgomery Lumber Company, 216 United Bank Building Sioux City, Iowa.—Our old reliable “Smut,” grafting something as usual, under the letter-head of the “Canoe Regatta & Carnival, Omega Pond, Phillipsdale, R. I., Lewis D. Nisbet, Chairman,” writes:

. . . After February 15 my address will be 85 Schermerhorn Street, Brooklyn, N. Y. I have purchased the patent rights to operate the Woolworth Filter in New York City, and am going into partnership with a man named Fox. Sounds rather bad I know, but leave it to me. We shall be located on the top floor so that any of the fellows who drop in on me will not do much harm. Inasmuch as I have made all my business arrangements with the same degree of precaution I feel assured of success. I have good cause to believe that Sam McCain is in *Luxgh*. I have not heard from him since he came on to Bud Miller's wedding. Saw Nichols at the New York Club the other day. He smokes and plays the national game as of yore. While in Trenton a couple of weeks ago I saw Harrub. He seems happy with his wife and son. It is a good thing that he is a man of firm habits; all the houses on his street look alike, and only every tenth is numbered. Guess that is all in the line of news that I have to offer. I hope you will look me up if you ever get to the Big City.

—Nickerson writes from Saylesville, R. I.:

If you ever get down Providence way call up the Moshassuck Club, Pawtucket, 674 MM. Hubbard, Fisher and I, with three other fellows, are keeping house together. Come and see us.

—George Palmer, 213 East Hanover Street, Trenton, writes:

Trenton is quite a ways from Boston and yet it seems quite home-like down here with Harrub, '09, Schofield, '10, and Letton, '11. Hoyt, '09, is health officer of Princeton just a few miles from Trenton. We were mighty sorry to have Scharff leave after a two month's stay here. Before he left the bunch got together for several feeds and some talks. I have seen Cary once, and have heard that Brooks has been in town recently. I went up to the annual dinner of the New York Club in January and had a corking time. Nisbet was here a short time ago showing us an improved water filter for house use.

—C. W. Radford is president of the Radford-Wright Company, Ltd., of Winnipeg, wholesale manufacturers and distributors of doors, glazed sash, mouldings, frames, screens and building papers.

—Walter Rodman is at University, Va.—On the letter-head of the “Universalist Churches of Henderson and Ellisburg, Elmo A. Robinson, Minister,” we have:

My addresses are Henderson, Ellisburg, and Canton, N. Y. At the latter place I study four days a week, trying to complete my theological education. The remainder of my time is equally divided between the other two places in each of which I am the minister of a Universalist church. One of the church buildings burned this fall, so that makes an extra problem—to build a new one. Send your checks to me. This is a cool climate, and usually the trains don't run. I am celebrating Washington's birthday by being stalled. Any Tech man wishing to deliver a lecture on any pet scheme will be welcome at Henderson.

—Rountree is now director of the technology department at Newberry College, S. C., and sends his best wishes to the class.—Here is a specimen of what we want from Rosenblatt, who is with H. M. Byllesby & Co., engineers, at Rock Island, Tenn.:

I see by the REVIEW that you have sent out class notices and invited a "holler" from those who didn't receive them, so here goes that holler. Guess it is my fault as I failed to notify you of my change of address from Placerville, Cal. I have been down here since the first of last October, working on the preliminary work for a hydro-electric development. I would sure like to see some 1909 man but don't expect there are any in this neck of the woods.

—Garret Schenk of the Great Northern Paper Company, Bureau of Economy, Millinocket, Me., is always on hand to deliver the goods:

I am enclosing check for five dollars in payment for dues 1911,-12,-13,-14 and 15. If this is not legal and you are unable to credit me with this amount on your books, kindly let me know.

—Here is another from H. L. Sherman, secretary of the Investor's Land & Water Co., Inc., 611 Trust and Savings Building, Los Angeles, Cal., written to Shaw:

As the class of '09 has paid me the compliment to request my class dues, I hasten to comply with the request by sending the enclosed order for \$5. This I believe will pay me up to date, and then some. Put the advance money out at 5 per cent. and when next we meet in Boston, we will go to Metcalfe's and get milk shakes on the interest. Owing to dynamics, electricity, machinery and astronomy (I'll bet those names send shudders up your vertebrae), my diploma was dated 1910. Such a calamity must be experienced to be appreciated, for I did not attend a single class after my last sitting in '09. Nevertheless I was besieged with 1910 literature, prominent among said literature being requests for dues. Several times, if I remember correctly I remonstrated with them; finally evidently with success. I do not remember having read of your having relinquished all the great and glorious rights of bachelorhood, but still it may have come to pass. For matrimony seems rife amongst the '09ers as well as other classes, to judge from the alumni booklets I have read. If the transcontinental roads hold out, I shall endeavor to be on the job in 1914. The magic date out here is 1915, and there ought to be enough of you people here taking in the fair, to hold a reunion in 'Frisco, which is some place to have a reunion in. About a year ago on the way back, I tarried at Reno a day or so. When back at Boston I inquired for Sharp, only to find he was located but a few miles from Reno with the Stone & Webster people. Thus do great men almost meet, but not quite. I am so far out of the range of the class of '09, Desmond being the only member I can think of whom I have met in Southern California, that my knowledge of the class is confined to the alumni reports. Hence, I can not give you any interesting little glimpses of our fellow-classmen. As to myself, I have not (yet) reached such a position of importance in the world where what concerns me interests the multitudes. I have worked at civil engineering for a while, doing reinforced concrete work down on the Mexican border for the California Development Company, the parent company, which supplies water to all the Mutual Water Companies of the Imperial Valley. The last year I have been getting deeper into the ranching game, through the above company in which I am interested. I hope to see all the lights great and small who made their yearly migration from the top of A to the top of B, and then down a flight in B, at some future celebration in Boston.

—X. R. Smith writes from Weldon, Pa.:

We had a good alumni feed on the 20th of January. Have you heard that A. C. Besselièvre has a little girl—the first in Course XIII?

—J. N. Stephenson, who, by the way, is one of the few, who, on January 10 of each year, draws a check payable to A. L. Shaw, treasurer, received a class letter along with the rest just to show him we were on the job. "Steve" is so used to hot airing at his gang of would-be engineers that he could not resist a stab at us and writes as follows from 2011 North 9th Street, Terre Haute, Ind.:

I received your very insinuating letter and deeply resent the implied implications against my good name and decidedly impecunious financial status. Nevertheless, old Pal, I was very glad to see your handwriting on the envelope and your handiwork within. I hope that masterpiece of exhortation had the desired effect and drew forth an abundance of bones from the dead ones, meanwhile I hope to be able to cheerfully send my annual contributions for oil and winding. Enough of that, you say you want news. Well to begin with, I am alive and so is my wife and we are both happy and busy as we used to be in forty-odd Walker when Jack Elbert was around making up a book on the Yale-Harvard game. I wrote Ike Litchfield that we ought to have a "Technology Club of the Wabash," but as I am the only Tech man within about seventy miles it will have to wait awhile. They could start one in Indianapolis with thirteen there. My lectures in industrial chemistry last term on processes and machines went off OK. I have only two lectures a week this term, but have started four new elective courses, two of which I give. One is in gas analysis and the other in organic reactions, both are laboratory courses. The other courses are in machine design (designing chemical apparatus) and in shop work (forge, foundry and machine shop). The latter course is intended to give the men an acquaintance with machinery, etc., that will make the machine design of more value to them later. We get quite a bit of outside work at the laboratory and I have just finished a job that has hardly left me for three weeks with time to eat. The next thing on the program will be to write up my lectures for next year. We get through here June 6 and plan to go by boat from Norfolk to Boston. Ask Fernie if he is going to be home then. I will let you know when we arrive in Boston and perhaps we can connect this year. I spent ten good cents trying to get you on the 'phone last year, but they said your old factory was closed. It was Saturday afternoon.

—E. E. Wells writes under address of Davison Chemical Company, Baltimore, Md.—Wolfner advises us of a change of address. He is now at 143 High Street, Peoria, Ill.—Zalmer writes from 3708 Spruce Street, Philadelphia, Pa.; that our energetic letter severed from him three bones.—O. L. Throckmorton, who you will remember ran on our class relay team, and from whom we have not heard for sometime says:

While I did not return to the "Stute" in 1909 I am glad to say that it was my own decision and not the request of the Faculty. and I always want to be considered a member of the class of '09. It is a long way from Wichita to Boston which makes it rather hard to take an active part in the class "doins" but I am always glad to receive notices and bulletins and in that way keep in touch as well as possible. I am enclosing check for \$3.25 for dues and exchange and if there is an excess wish you would have as good a smoke as it will buy on me.

Address is Wichita, Kan.—The following letter is from Ray Temple, who is at the C. H. Cowdrey Machine Works, Fitchburg, Mass.:

I tumbled into Fitchburg a month after graduation and ever since then I have been designing special machinery for the C. H. Cowdrey Machine Works. For about a couple of years I have been working on a set of machinery for making file handles and similar articles. The machines are all automatic and start with a log just as it comes from the woods, carrying it through all the various stages necessary to convert the log into the finished product. The machines are almost completed now and in a month or two we expect to beat the best of our rivals in the production of handles. Strange to say I hear most frequently from one of the most distant members of our class,—Riojo Onuki, who spent the last year with us and who is now at the Yokoska Naval Dock Yard in Japan. After leaving M. I. T. Onuki spent a year at Worcester Tech and took his degree there. He visited me at Fitchburg just before his graduation and I helped him with the English wording of his thesis which he had written as well as he could though of course it sounded more Japanese than English. He never has forgotten the help I gave him and I got letters from him from England, Suez, Gibraltar and Hongkong as he made his way home. Good luck and best wishes to all the '09 crowd.

—It was decidedly careless of Thornley not to send us the mate to this letter, but we will look for it next time.—A clipping from a Rochester paper tells us that Harold O. Stewart who is with the Rochester Railway & Light Co., gave an illustrated lecture on house lighting in the physical laboratory at Mechanics Institute. He compared a series of electric lamps among which were both tungsten and the older style carbon lamps, with various gas lamps. —In a Wilkesbarre paper of January 29 appeared the following:

"Thomas H. Atherton, Jr., now an architect, will shortly return to Wilkesbarre, his home town, to practice his profession. He is a graduate of Princeton University in the class of 1906, and also of the Massachusetts Institute of Technology. After taking his degree as an architect in the latter institution, he spent a year in the office of Carrere & Hastings, noted architects in New York, and later a year in Paris. Since his return from France he has been with Townsend & Fleming at Buffalo."—L. H. King writes from The Technology Club of New York:

I suppose it is time for another REVIEW to come along and so I want to let you know of my change of address from Hartford to the above. A little experience with the big architects looked good to me and so when I had the opportunity, came down here about the middle of February to work in the office of McKim, Mead & White. I naturally turned to the Technology Club and have been living here very comfortably ever since. They have got a first-rate establishment here of its kind and I have met lots of the fellows I knew in Boston. While in Hartford I used to see Lougee and Marshall quite frequently, but here I see many more Tech men of course. If you have any information about Herbert Wertheim, a former '09 man from Australia who was only at the "Stute" for a year or two, I should be glad to hear it. I spent five weeks in Germany with him in '08, but since then he has absolutely disappeared. My regards to all the fellows in your vicinity.

—Bill Kelly, who is still in Germany, Haydnstrasse 7, Leipzig, favors us with the following:

. . . You can tell Art Shaw I'll send him some money after the 1st of the month. At present I am all in, financially. That long letter about the fellows cleaning up their dues is all right and I hope every one will cough up. Before I forget it, after August 1 my permanent address will be 202 Riverside Drive, New York City, until you hear further from me. I expect to finish my work here in July and then start for an inspection of the rubber plantations of Ceylon and the Straits Settlements arriving home via 'Frisco about a year from now. I'll be home then for good, *Gott sei Dank!!* I have had a pretty good time this winter. Spent about two weeks in St. Moritz enjoying the winter sports, skating, coasting and skiing and never had a better time in my life. Was with the hockey team of the Leipziger Sport Club and we won two games in St. Moritz. A couple of weeks later we went to Prague and played four games in one day, winning all of them and the championship of Austria besides. I was mighty glad to hear that the old "Stute" was able to trim Harvard 4-1 in a game of hockey. Dick Gould '11 who is now in Essen, Germany, sent me the clipping from the *Herald*. Everything is going along well here and my "Arbeit" is progressing.

—After discarding the spiked shoes for two years, Carl Gram again heard the call this winter and has been running for B. A. A. The team running against N. Y. A. C. at the B. A. A. meet won, equaling the World's record for 1560 yards in 3 minutes, 8 1-5 seconds. The following week N. Y. A. C. beat the Boston team in New York, lowering the Indoor Mile Relay record to 3 minutes, 25 1-5 seconds. On Washington's birthday at Troy, N. Y., the team ran a three-cornered race against N. Y. A. C. and the crack I. A. A. C. team composed of Rosenberger, Kiviat, Sheppard, and Gissing, in which Boston won in 3 minutes 26 seconds. After the race, the track was measured and found to be 12 yards too long, showing that if the distance had been correct a new World's indoor record would have been established. Carl has now been entered for the Olympics in Sweden this summer, but ten hours a day making chocolate does not allow much time for the systematic training necessary.

1910.

JOHN M. FITZWATER, *Sec.*, Industry, N. Y.

G. BERGEN REYNOLDS, *Asst. Sec.*, 142 Highland Avenue, Somerville, Mass.

W. R. Waldo was married July 20 to Miss Etta A. McClusky of Cambridge, Mass. Waldo is engaged in construction work for Fred T. Ley & Co. of Springfield, Mass.—The secretary received the following announcement: Mr. and Mrs. W. H. Warren announce the marriage of their daughter Jane Board to Mr. Elwell Ransom Jackson on Saturday, December 30, 1911, Philadelphia.—Luther Davis is with Haffenreffer & Co., brewers, Jamaica Plain, Mass. Davis had a son born March 28, 1911. Although the young man is over a year old this is the first we have heard of him, and trust it is not too late to extend our congratulations.—John G. Ahlers was married to Miss Estelle K. Henry of Cleveland, Ohio, November 6, 1911. Ahlers has been with the Turner Court Company,

New York City, since June and is at present assistant on construction of a wireless station at Sayville, L. I.—R. J. Torralbas visited New York during October with his wife. They spent their honeymoon traveling through the United States, Torralbas is sanitary engineer for the Havana Street & Sewer Construction Co.—John Lodge is working for a construction company in Astoria, L. I. His present work is on the constructing of tunnels under the East River to carry gas from Long Island to Manhattan.—Fitzwater is back in Industry after having spent a few months in Penn Yan. Fitz is field inspector of the Eastman Kodak Company on one of their new sixteen-story buildings.—C. H. Shaw is located with the National Electrical Association. For the last few months Shaw has been doing work in New England.—H. G. Reynolds is superintendent of one of the factories of the Permel Mfg. Co., Warren, Ohio.—H. N. Harrison is office manager for the Philadelphia branch of William P. Bonbright & Co., bankers and brokers.—Atwood C. Page, II, who left in his second year on account of his health is now living in Hartford, Conn. Although Page has almost recovered from his illness he is going south during March and April.—R. A. D. Preston, who is with the Goodyear Rubber Company was in Boston for a few days about the first of March on a business trip in the East.—Jack C. Tuttle has kept his promise, and writes that he is very much interested in his work for the Goodyear Rubber Company in the experimental department.—J. Foster Cole is in the plant engineering department of the New England Telephone and Telegraph Company. The engagement of Cole to Miss Adola F. Fitzgerald was announced December 25, 1911.

1911.

ORVILLE B. DENISON, *Sec.*, 152 West Street, Worcester, Mass.

NOTE. The attention of 1911 men is called to the above change of address of the secretary.

As the governor of North Carolina said to the governor of South Carolina ere these many years: "It's a long time between drinks!" So it's been quite a while since the class has received any news of "itself" in these pages, on account of the fact that the space in the last issue of the REVIEW was devoted entirely to address changes and occupations of the members. Right now, however, there is so much real-live "first-page" dope on hand, that it is hard to know just where to begin. With the present campaign for funds to aid in establishing the New Technology under way, the site problem at last settled and many other minor details to be attended to, there is certainly a multitude of things to interest the loyal alumnus of Technology. Perhaps the best place to start is way back in the closing week of the year 1911—which by the way is a pretty big year, from our point of view—and tell of the happy

reunion and dinner, of the members of the class who were around Boston Christmas week, which was held at the Copley Square Tuesday evening, December 26. There were forty-nine men present and everybody entered right into the spirit of the affair and a "big night" resulted. We were most fortunate in having as our guest, President Maclaurin of the Institute, than whom there is no one dearer to all 1911 alumni. The secretary was so much pleased with the letter of acceptance received from Doctor Maclaurin, that he is going to take the liberty of reproducing it here:

MASS. INST. TECH.
OFFICE OF THE PRESIDENT.

DEAR MR. DENISON:

I have so many invitations to class dinners that I generally have to decline them, however regretfully. The dinner that you are arranging is of an exceptional character, being the first of its kind for your class, so that I feel that I must make a special effort to be present. I am particularly anxious to meet the men who so recently left the Institute, and to learn how they are progressing in the real battle of life.

Yours sincerely,

RICHARD C. MACLAURIN.

Dec. 4, 1911.

Mr Orville B. Denison,
49 Institute Road,
Worcester, Mass.

—True to his promise, Doctor Maclaurin attended the dinner and manifested a lively interest in the affairs of the new graduates, talking personally with nearly every man present, either before or after the dinner. The secretary was toastmaster of the evening. It had been planned to have Mr. Litchfield, editor of the *REVIEW*, present with Doctor Maclaurin, but he was forced to decline the invitation, as he returned to his home in New York for the holidays. During the course of the dinner Doctor Maclaurin gave us a splendid talk, teeming with words of advice and encouragement and full of hearty wishes for future success of all the men. At this time, also, the secretary presented a detailed statement showing the geographical distribution of the men in 1911 whom he has heard from. For the benefit of the members of the class who were not at the dinner, the statement is given herewith:

GEOGRAPHICAL DISTRIBUTION OF 1911 MEN.

634 letters sent out in September; 310 replies received; 28 letters returned not able to reach addresses. Of the 231 men who received the bachelor of science degree with 1911 I have heard from 168, three of whom desired to be affiliated with another class. Of the 22 men who received advanced degrees with 1911 I have heard from 8, 4 of whom desire enrollment with the class from which they received their S. B. degree. The summary of replies is as follows: graduates who will affiliate with 1911, 169; non-gradu-

ates, desiring affiliation with 1911, 113; men desiring affiliation with other classes, 28; total, 310. This means that there are 63 graduates or a percentage of 27.3 yet to be heard from.—The geographical distribution of the 282 men desiring affiliation with 1911 from whom word has been received is as follows: Massachusetts, 137; New York, 37; New Jersey, 13; Pennsylvania, 11; Ohio, 9; Connecticut, 9; Illinois, 8; California, Colorado, Delaware and Texas, 4 each; Rhode Island, Michigan and District of Columbia, 3 each; Georgia, New Hampshire, Arizona and West Virginia, 2 each; Alabama, South Carolina, Oregon, Vermont, Kansas, Iowa, Minnesota, Maine and Utah, 1 each; total in United States, 266.

Outside of the United States we find 16 1911 men, as follows: Canada, 9; with Arnold, Cowee, Osborn and Whorf in Ontario; Shenstone and Warner in British Columbia; Larabee in Alberta; Kenney in Quebec; and Polhemus in Winnipeg.—Germany, 3: C. Edwards, Jr., who is with the Hamburg-American Line; and "Dick" Gould and H. S. Waite, who are studying.—Mexico, 2: de Landa and Metz.—Canal Zone, 1: Gaillard.—Brazil, 1; H. C. Frisbee, M. S.

Percentage of replies by courses: Course IX, 2 out of 2, 100; Course VII, 1 out of 1, 100; Course VIII, 1 out of 1, 100; Course XIII, 5 out of 6, 83.3; Course XI, 12 out of 15, 80; Course XIV, 4 out of 5, 80; Course II, 38 out of 48, 79.2; Course VI, 37 out of 49, 75.5+; Course X, 14 out of 19, 73.7+; Course III, 11 out of 17, 64.7+; Course I, 29 out of 46, 63+; Course V, 5 out of 12, 41.7—; Course IV, 4 out of 10, 40—; total, 165 out of 231, 72.7.—A sad aspect of the evening was the announcement made by the secretary of the sudden and most untimely death of one of our most popular classmates, John Rice Bell, Course X. His death occurred late in December in Perth Amboy following a dog-bite. The unfortunate young man died in mortal agony, suffering from hydrophobia. A committee consisting of Lloyd C. Cooley, Emmons J. Whitcomb and Harold B. C. Allison, was appointed to draw up suitable resolutions. The resolutions as drawn up and sent to the bereaved family, were as follows:

WHEREAS, God in His most infinite wisdom has taken unto himself our beloved classmate, John Rice Bell:

Be it resolved, That the class of 1911, Massachusetts Institute of Technology, in reunion assembled express its most sincere and heartfelt sympathy to his parents and his brother, and

Be it resolved further, That copies of these resolutions be spread upon the minutes of the class, published in *The Tech*, and sent to the bereaved family for the class.

(Signed.)

LLOYD C. COOLEY,
EMMONS J. WHITCOMB,
HAROLD B. C. ALLISON,

Committee.

December 27, 1911.

Several days later the secretary received the following letter from the parents of our former classmate:

MALDEN, Jan. 1.

DEAR MR. DENISON:

We wish to thank you for your very kind note of sympathy; any word from John's friends is especially appreciated. We both wish you and all the class success in all your work.

Sincerely,

MR. AND MRS. A. M. BELL.

—Since the last set of class notes, there have been two meetings of the Alumni Council. The first was January 25 and the second March 1, both of them being at the University Club. The secretary, as member of the council from 1911, attended the first of these meetings, but was unfortunately unable at the last moment to get away from business in time to attend the latter. N. B. You know there are times when we have to work, although judging from a large proportion of the letters received, work (so called) is a "cinch" compared to a course at Tech.—The secretary has received a letter from Mr. Everett Morss, chairman of the Alumni Fund Committee, informing him of his appointment as chairman of the sub-committee for 1911. A request was also made for the appointment of other members of the class to aid in the campaign for funds. Accordingly the secretary has written to the following men, requesting them to aid in this work: Course I, T. B. Parker; Course II, G. B. Wilkes; Course III, M. A. Grossmann; Course IV, M. E. Hayman; Courses V and X, L. C. Cooley; Course VI, O. B. Denison; Courses VII, VIII and IX, R. H. Ranger; Course XI, H. P. Ireland; Course XIII, W. D. Allen; Course XIV, L. G. Odell. It is expected that by the time this news has been published, a meeting will have been held, and plans for a campaign among the 1911 members made.

News Gleaned from Letters

Well, classmates, there is a whole lot to tell you about what "we" are all doing! An echo of our class day exercises is heard in the following received from "Bill" Salisbury, who is with the Rockwood Sprinkler Company, in Chicago:

Am well on the way to fulfilling your nery prophecy (EDITOR'S NOTE. This means "Bill" has become engaged!), but don't see any chance for further advancement until I *get* further advancement.

—Courage, Wilhelm, courage. The race is not always to the swift, 'tis said!—Nat Seeley, Course II, is with the engineering department of the Matheson Automobile Company at Wilkesbarre, and opines: "Feels good to make the world go round. Eh?"

What?"—"Pete" White is with the Power and Plant department of the Yale & Towne Manufacturing Company in New Haven, and writes that he has been getting fat since he left the sphere of Don Stevens' influence.—S. P. Spaulding and L. B. Weeks are still at the United States Military Academy at West Point, in the class of 1913.—Cornell and Roberts, Course XIII, are at present engaged in construction work with the New York Shipbuilding Company at Camden, N. J., and report that they are both enjoying life.—Foster Russell is in the assembly room of the Art Metal Construction Company at Jamestown, N. Y., and writes:

After working three days as second assistant to an assembly man, have been promoted to regular assistant. My weapon of offense is a screwdriver and with it I attack defenseless bolts, etc., with great valor and skill.

—Say, fellows, what do you suppose has "broke," to refer to the newspaper vernacular! Simply this: Charles Morse Barker has come to Worcester with the Standard Plunger Elevator Company, and the secretary and the aforementioned individual are going to live together. 'Twill seem natural, you can bet!—Congratulations are again in order, gents, for news has been received of the birth of Francis Aldrich Moore, Jr., February 21, 1911, at Pittsburg, Texas. Congratulations, Doc, old boy! Guess p'raps you didn't beat "Pop" Hufsmith to it that time!—Scott Putnam is in Chihuahua, Mexico, where he has been since graduation. He writes:

I was a sewer digger, Course XI. Am now mining. I suppose there are Course III men digging sewers by now. Thus do our plans "gang agley."

—The engagement has been announced of H. P. Ireland and Miss McClellan of Newton. Congratulations, Howard!—Kanezo Goto, who by the way was at the Christmas dinner of the class "feeling fine," is back at the 'stute, taking a special course in naval architecture. He expects to return to Japan in June and go back into the Japanese navy.—Larry Hemmenway, Course VI, is learning the motor truck business with the General Vehicle Company at Long Island City, N. Y.—"Johnny" Bigelow, Course IV, has gone to Cuba to look after some property there which his father has recently acquired. He expects to be gone until the latter part of April, and then he may decide to stay indefinitely in his father's interests.—H. C. Frisbee, Course I, is with the Rio Janerio Light & Power Co. in Brazil and writes:

Am working on an hydraulic tunnel $5\frac{1}{2}$ miles long. Capacity of tunnel 30 cubic meters per second, when running full. Most of the excavation through solid rock. Regards to the fellows and to yourself

—G. H. Estes, Course II, is learning the cotton manufacturing business in a mill in Lewiston, Me., where his father is the agent.

—Arthur W. Carney, who was with the class during the freshman and sophomore years, has joined the ranks of Thespiis and is now on the stage. He writes:

During the past year I have been all over the country from coast to coast and from Mexico to Canada. I have met many Tech men who have given me the glad hand. In Savannah I met a Mr. Cheney, who used to be at M. I. T. with 1911. He said he had been married for over two years.

—And still the list of married men grows!—E. A. Collier, on his way home from Tech, saw the battle of Tia Juana on the Mexican border June 22. He reports that 700 federals ran 100 rebels, mostly Americans, over the border, and that twenty-five were "punctured."—Roy MacPherson, Course II, has been traveling around quite a bit since graduation. He has made two trips to South America, and has also travelled extensively through the Southern states in the interests of his father's cotton machinery business. He is at present working as testing engineer for the American Brass Company in Waterbury, Conn. He says it's O. K. down there.—Another 1911 man entered the ranks of the benedicts early this year, as the following newspaper clipping will reveal: "The wedding of Miss Dorothy Gooding of Brookline and Malcolm Dana Price of New Orleans took place last night at the home of the bride's parents, Mr. and Mrs. Charles S. Gooding, No. 116 Marion Street, Brookline. The ceremony was performed by Rev. Ambrose W. Vernon, pastor of Harvard Congregational Church, which the bride attends.

The sister of the bride, Mrs. Daniel A. Rollins, was matron of honor. Miss Barbara Rollins, the bride's niece, was flower girl, and Master Charles Haven served as page. Mr. Gooding gave his daughter in marriage.

John Clark Jones, Jr., of Brookline, Tech 1911, was best man. The ushers were Lloyd C. Cooley of Brookline, Tech 1911: Gordon B. Wilkes of Boston, Tech. 1911, and F. Spencer Arend of Newtonville, Tech, 1910.

Three hundred invitations were issued for the reception which took place after the wedding."—"Dutchy" de Romana is with the General Electric Company in Schenectady, and working hard, so he says.—Norman Duffett, Course X, has left the wilds of Staten Island, where he was with the S. S. White Dental Mfg. Co., and has gone to work with the Union Carbide Company at Niagara Falls, N. Y.—Franklin Osborn 2nd, Course III, has left the Millentt mine and is with the Nevada Douglas Copper Company at Ludwig, Nevada.—Percy Rideout, Course I, has been transferred to the Cleveland division of the engineering corps of the Big Four Railroad, with headquarters at Galion, Ohio.—H. S. Lord, Course II, has gone to work for the Landis Tool Company at Waynesboro, Pa., but says his mail may still go to Athol (wherever that is).—A. B. de Aranjó, Course VI, has taken the position of circulation

manager of *La Hacienda*, a large Spanish-American monthly publication, with headquarters at Buffalo, N. Y. He sends best regards to all his classmates.—The secretary has received a splendid long letter from M. B. Black, in which he says:

I arrived on the job with the Minetto-Meriden Company on June 12 on a two months' engagement. I am still here and am going to remain with the company at an increased salary. My work is chiefly construction, although I have had considerable designing since coming here. I guess I was the first '11 man to be married after graduation, having been married at 6 p. m. on June 6 in Boston. Our latchstring is out to any '11 man who by chance or by accident may wander this way.

—Black also suggests a scheme for securing money from 1911 for the site campaign, in which he advocates either one of two plans. First, ask for contributions from men about five years after their graduation, thus giving them a good change to get on their feet; second, to ask the men of the more recent classes to subscribe some certain amount payable within five years.—We find the following item in the *Rochester Herald*: "Frank C. Taylor of Providence, R. I., a graduate of Brown University and the Massachusetts Institute of Technology, has joined the staff of John C. Parker of the Rochester Railway and Light Company. Mr. Taylor will be connected with the industrial work department."—As a fitting close to this bunch of news, the address changes will be given.

Address Changes

H. S. Alexander, 95 Charlotte Street, Akron, Ohio.—D. P. Allen, 4623 Penn Street, Philadelphia, Pa.—C. M. Barker, 152 West Street, Worcester, Mass.—E. E. Besse, Hotel Astor, Bay City, Mich.—J. K. Campbell, Esmond, Va.—J. B. Cheney, care of Southern Georgia Lumber Company, Savannah, Ga.—C. C. Clark, 113 Madison Avenue, New York City.—A. M. Coleman, 1120 Beacon Street, Brighton, Mass.—E. A. Collier, P. O. Box 202, Eugene, Ore.—R. W. Cushing, 153 West Concord Street, Boston.—A. B. de Araujo, 354 Franklin Street, Buffalo, N. Y.—Carlos de Landa, Escuela des Bellas Artes, Mexico, D. F.—K. W. Dennet, Heerå, Oahu, T. H.—A. L. de Romana, care General Electric Company, Schenectady, N. Y.—Norman Duffett, 258 Fourth Street, Niagara Falls, N. Y.—J. H. Dunlap, 95 Charlotte Street, Akron, Ohio.—G. H. Estes, care Continental Mills, Lewiston, Me.—E. R. Hall, 1 Davis Street, Wollaston, Mass.—E. B. Hawkins, Delta, York County, Pa.—M. E. Hayman, Tech Chambers, Boston.—L. T. Hemmenway, 143 Kent Street, Brooklyn, N. Y.—W. T. Jones, Norfolk, Va.—K. B. Kilborn, 95 Charlotte Street, Akron, Ohio.—T. S. Killion, 130 Russell Street, Malden, Mass.—Samuel Kostuik, 30 Causeway Street, Boston.—NOTE. Name given as B. Lawton in last issue, should read B. Lawrence, 12 Westmoreland Street, Dorchester Centre, Mass.—M. J. Lowenberg, 671

Central Avenue, Albany, N. Y.—W. T. MacCreadie, Andover, Mass.—L. R. McMillan, 1564 Peters Avenue, New Orleans La.—R. G. MacPherson, Engineering department American Brass Company, Waterbury, Conn.—A. L. Myers, 2340 7th Ave., New York City.—L. G. Odell, 183 Walnut Street, Newtonville, Mass.—F. M. O'Neill, 137 East Street, Holyoke, Mass.—F. Osborn, 2d, care Nevada Douglas Copper Company, Ludwig, Nev.—T. B. Parker, 7 Wellington Road, Brookline, Mass.—C. R. Perry, care American Zinc Smelting Company, Monterey, Mex.—A. H. Peycke, 4812 Winthrop Avenue, Edgewater Station, Chicago, Ill.—M. D. Price, 23 Regent Circle, Brookline, Mass.—S. B. Putnam, Box 49, Parral, Chihuahua, Mex.—P. A. Rideout, Cleveland Division, Engineering Corps of Big Four Railway, Galion, Ohio.—Foster Russell, care Y. M. C. A., Jamestown, N. Y.—W. C. Salisbury, 3914 Ellis Avenue, Chicago, Ill.—F. G. Smith, 712 Bank Street, Waterbury, Conn.—W. Y. Stampon, Jr., Port Ontario, Oswego, N. Y.—Wozo Suzuki, 54 Hemenway Street, Boston.—Noyes Weltmer, Garfield, Nev.—R. M. White, 649 Apartado, Mexico City, D. F.—J. L. Wilds, 86 Huntington Avenue, Boston.—I. M. Wilson, 229 Third Street, Niagara Falls, N. Y.—H. J. Wood, Riverside Mills, Olney, N. Y.

NOTE. Just as we go to press we learn of the marriage on March 13, of "Herlie" Fryer to Miss Ethel Irene Hoffer at Topsfield. This is a start on the class prophecy!